REPUBLICAN RIVER COMPACT ARBITRATION BEFORE MR. KARL DREHER, ARBITRATOR

Republican River Compact
Arbitration

Deposition of AARON THOMPSON, taken pursuant to notice at 8:00 a.m. on April 7, 2009, at the offices of the United States Bureau of Reclamation, 203 West Second Street, Grand Island, Nebraska.

#### APPEARANCES

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- - -

ALSO PRESENT: BRIAN DUNNIGAN, Director, Nebraska Department of Natural Resources District.

OTHERS PRESENT BY TELEPHONE: DALE BOOK, PE, Consultant for Kansas, Spronk Water Engineers.

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# I N D E X

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#### STIPULATION:

It is stipulated and agreed by and between counsel for the parties in this action that all statutory requirements as to certificate, mode of transmission, notice, notice of filing and the presence of the witness during the extension of the testimony are hereby expressly waived.

It is further stipulated that all objections as to form, foundation and responsiveness shall be made at this time or otherwise deemed waived; all other objections will be reserved until time of trial.

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REPORTERS CERTIFICATE:

State of Nebraska )
Lancaster County )

I, KELLY S. HORSLEY, certified reporter and a Notary Public duly commissioned, qualified and acting under a general notarial commission within and for the State of Nebraska, certify that AARON THOMPSON, appeared before me and was first sworn to testify the truth, the whole truth and nothing but the truth; that this deposition was reported by me and taken pursuant to the stipulation and hereinbefore set forth; that I am not counsel, attorney or relative of any of the parties or otherwise interested in the event of this suit; and that the following pages reflect truly, accurately and completely the recording of this proceeding.

IN TESTIMONY WHEREOF, I have hereunto set my hand officially and attached my notarial seal at Lincoln, Nebraska, this day of April, 2009.

Notary Public

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#### PROCEEDINGS:

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MR. CHAFFIN: There is one thing. This is John Chaffin speaking for the Department. The Solicitor and Secretary's Office has asked me to preface the depositions of both Aaron Thompson and Marv Swanda with —that the United States is not a party to the case and to the arbitration action, and that Aaron and Marv are appearing here today, and will appear next week pursuant to an authorization from the Secretary's Office under what we call the Touhy Regulations, 43, Code of Federal Regulations, 2.8, which sets out that when the United States is not a party, or when the Department of Interior employees are not a party, how they will participate.

And in the letter that I believe all the parties have, there is an authorization from Mike Ryan for Aaron and Marv to testify, and then they spelled out the parameters of their testimony; what they were authorized to testify to. And I was asked to just remind everybody that those are the parameters that we're here today and in our appearance. They are limited to that. And so we appreciate counsel's adherence to that, and hopefully we can have a nice amicable deposition, and going on to hearing next week.

THE REPORTER: And could you clarify Touhy Regulations for me? Spell that.

	Aaron Thompson direct
1	MR. CHAFFIN: Touhy is spelled T-o-u-h-y.
2	THE REPORTER: Thank you.
3	MR. CHAFFIN: And that is the name of a Supreme
4	Court case that establishes criteria for a federal
5	employee testifying in a hearing which they are
6	proceeding which they are not a party.
7	THE REPORTER: Thank you.
8	Raise your right hand, please. Do you swear
9	the testimony you're about to give today will be the
10	truth, the whole truth, and nothing but the truth, so
11	help you God?
12	MR. THOMPSON: I do.
13	AARON THOMPSON
14	Called as a witness on behalf of the State of
15	Nebraska, having first been duly sworn, testified as
16	follows:
17	DIRECT EXAMINATION
18	BY MR. WILMOTH:
19	Q Good morning, Mr. Thompson.
20	A Good morning.
21	Q How are you feeling today?
22	A Good.
23	Q Very good. My name is Tom Wilmoth, and just
24	for the record, and you probably know, but I represent
25	the State of Nebraska in this proceeding, and we're here,

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obviously, in regard to a dispute about the Republican River. And I appreciate you making yourself available to talk to us today, and I appreciate the Bureau doing that for us. I appreciate John's effort, John Chaffin's efforts, John Draper's efforts, and Pete Ampe's efforts to make sure that we had an opportunity to do this in a timely fashion.

A Thank you.

Q What I would like to do, is just briefly start with some discussion about your personal and professional background; learn a little bit about you; walk through a little bit of what you know about this dispute; some of the issues that are related to this dispute, and some of the things that have been stated in your written testimony.

With that said, could you just describe your personal background for me; where you haled from, how long have you been in Nebraska, that kind of thing.

A Okay. I was born here in Nebraska in a small town called Broken Bow. I lived there until I went to college at UN-L in Lincoln where I obtained a mechanical engineering degree; worked for a company after that called the Black & Veatch. It's an engineering consulting firm; traveled around with those folks for a while, and then the week before September 11th, 2001, I

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started with the United State Government at their facility, Hoover Dam, and moved around down to a dam called Davis Dam where I was a facility manager of that location.

I guess did some more schooling. Got an MBA from the University of Phoenix; moved with the government again up to Billings, Montana for a short time, and then I moved to Casper, Wyoming where I was called a deputy area manager for the Wyoming area office for the Bureau of Reclamation, which does cover some area in Nebraska; the North Platte River up to North Platte, kind of their boundaries. And then about a year ago, or excuse me, about a year-and-a-half ago, I moved to Grand Island, here in Grand Island to be the area manager for the Grand Island area office, which covers portions of Nebraska and Kansas, and the Republican River.

Q And just to orient me on the timing of those things, can you tell me when you were, generally, in the lower Colorado region?

A Yeah, I'm sorry. I moved there in August of 2001. I was there until -- I was at Hoover until February of '03. And then I was moved down to Davis Dam until, roughly, February of '05, where I moved to Billings. And approximately August of -- make sure I have my time lines here straight -- August of '06 I moved to Casper,

Aaron Thompson -- direct

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- Wyoming. And then August of '07 I moved here to Grand Island.
  - Q And I assume from your description that you were with the Bureau both in the lower Colorado region and in the Casper office, and Billings, also?
    - A Yeah. Yes, I was.
  - Q So you've been with the Bureau since, roughly, 2002; is that correct?
    - A Yes.
    - Q In one capacity or another?
  - A Yep.
  - Q And what are your general responsibilities as the manager here in Grand Island?
  - A General responsibilities for the area manager in the office is for oversight over the projects that we have. We have fifteen projects throughout Nebraska, Kansas. Roughly half in Nebraska, half in Kansas, and we have one project in Colorado, Bonny Dam.

Responsibility is for managing the group that is in charge of land resources; environmental compliance; operations and maintenance; engineering. Of course we have an admin officer, admin-type activities; budget officers. I actually only manage two people in the office, the deputy area manager and the administrative assistant. And from there on down, it's managed by

	Aaron Thompson direct 6
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1	division chiefs, and then branch chiefs, and then
2	supervisors. There's a
3	Q I'm sorry, I didn't mean to interrupt you.
4	A Oh, that's okay. There's a total of about 48
5	people in the office if you include the folks here in
6	Grand Island, in our McCook field office, and then our
7	dam tenders.
8	THE REPORTER: And then your what?
9	THE WITNESS: Dam tenders.
10	Q (By Mr. Wilmoth) That's d-a-m without a
11	A Yeah.
12	(Laughter)
13	A (Continuing) I figured she got that, but
14	Q You mentioned that you really, technically
15	manage only two people, yet there are 48 people in the
16	Grand Island and McCook office and your dam tenders, but
17	do those 48 people ultimately report to you? I mean, are
18	you responsible, in other words, for those 48
19	individuals?
20	A Yeah, that'sI guess I was trying to go down
21	the hierarchy. It'sI'm at the top of the
22	organization chart, and eventually it does filter up to
23	me for the
24	Q And you mentioned earlier that you had a
25	mechanical engineering degree?

	Aaron Thompson direct 7
1	A Correct.
2	Q When did you receive that, and from which
3	institution, UN-L? Is that
4	A It was UN-L, 1998, December.
5	Q And in your time with Black and Veatch, what
6	kind of work did you typically conduct?
7	A I did engineering design work for coal-fired
8	power plants, and also for gas turban combined cycle
9	power plants. The notable projects were inone was in
10	China. I never actually went there, but did all of the
11	design work between the two agencies. And the other one
12	was in Carthage, Texas, the combined cycle power plant,
13	so
14	Q Did you do any type of hydrological work or
15	analyses with Black and Veatch?
16	A The only hydro work I did was things like pipe
17	sizing and pump sizing and steam valve sizing.
18	Q And then you mentioned that you received an MBA
19	from the University of Phoenix. Is that a Masters in
20	Business Administration?
21	A Correct.
22	Q And the date of that?
23	A I believe that was in November of '05.
24	Q And have you engaged in any activity that was
25	reliant on that MBA, in particular? Do you have any

Aaron Thompson -- direct 8 other employment that required the MBA? Α My employment didn't require that degree. That was a voluntary decision on your part? Α Yep. Do you possess any other degrees? 0 Α No, I do not. Either at your time at Black and Veatch or your time with the Bureau, have you developed any expertise in modeling, specifically groundwater modeling? Α No, I haven't. Do you have individuals in this office, or elsewhere in the Bureau that you rely on for opinions about groundwater movement in relationships to surface water? Α Yes, I do. Who are those individuals? A few of them would be Gordon Aycock, who is in this room; Marv Swanda, Mark Phillips, Patrick Erger, and others associated in the groups in our regional office in Billings. Those folks I mentioned, Gordon, Mark and Patrick are all in our regional office in Billings, Montana. In Billings. One of the things that was mentioned by Mr. Chaffin earlier, is that you have been

authorized to speak to certain issues, and by inference,

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9 Aaron Thompson -- direct 1 not authorized to speak to other issues; is that your 2 understanding? 3 Α Yes. Could you summarize, generally, what you 4 understand you are authorized to speak to? 5 6 I think just generally, it's to talk about any 7 past or present policies that the Bureau of Reclamation has engaged in, and specifically on the Republican River. 8 9 And past or present policies, would those be 10 policies that relate to Bureau projects or --11 Α To contracts we have with our irrigation 12 districts, contracts we have with anything dealing with 13 our water. 14 And I assume that you're authorized to speak to Q 15 the issues that are contained in your written responses 16 to Kansas' questions? 17 Α Yes. 18 In order to keep me from overstepping my Q 19 boundaries, can you tell me, generally, what you are not 20 authorized to speak to? 21 I think the simplest thing I am not authorized to speak to is future policies, or future decisions. 22 23 Future from today's date, for example? Is that Q 2.4 what you mean? 25 Α Yeah, exactly.

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Q So would that include, for example, potential purchases of surface water by the State of Nebraska in an effort to comply within the Republican River Compact?

A Yeah, and how those purchases would work. I am definitely able to talk about how they did work.

Q Okay. Are you authorized to speak to future projections about the impact of such activities? On the hydrology of the basin, excuse me.

A I guess, define it more.

Q Well, for example, are you authorized to speak to potential for surface water purchases to assist the State in complying with its Compact obligations?

A I think I'm --From my understanding, I'm able to talk about, that the United States Government is a willing partner, and has been a willing partner in surface water purchases; but how those may work, and how those might be structured would be something I would --in the future with something I have to get my contracts folks together, the attorneys together, the solicitor, all the different parties involved. So, I guess it's thinking about those details of how those would work. I don't think I can speak to how exactly those would work.

MR. WILMOTH: And John Chaffin --for the record I will make references --

MR. CHAFFIN: You better be careful with that

Aaron Thompson -- direct

one.

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(Laughter)

MR. WILMOTH: Mr. Chaffin, if there's something that you need to elaborate on in this regard, feel free to do so.

MR. CHAFFIN: We have a -- the President has nominated a new Commissioner of Reclamation, and Mr. Thompson can explain what, you know, the present policy is. How new policy would be enunciated by the current secretary and the assistant secretary for water and science and the Commissioner of Reclamation; until those people are on board and start to articulate it, he can't speculate as to what they might do to alter present policy.

MR. WILMOTH: Very good. I understand.

Q (By Mr. Wilmoth) 1'11 ask you this next question, Mr. Thompson, but if it's really a question for Mr. Chaffin, that's fine too. Even though I know you're not under oath, Mr. Chaffin.

Just to clarify then, my next question is, is there anyone who is authorized to discuss those things currently, that we're aware of?

A No.

Q Okay. Let's talk just for a few minutes about your knowledge of the Republican River Basin and the

12 Aaron Thompson -- direct 1 river system. You mentioned you came to Grand Island 2 about a year-and-a-half ago? 3 Α Uh-huh. THE REPORTER: Yes? 4 THE WITNESS: 5 Yes, sorry. 6 (Laughter) 7 That's okay. I'll remind you. THE REPORTER: MR. WILMOTH: She's very aggressive. That's 8 9 why we like her. 10 (By Mr. Wilmoth) Had you ever spent any time 11 in the Republican River Basin prior to that? 12 Α Only as a private recreationalist growing up in the state of Nebraska. 13 14 Do you have any family that hales from the 0 Basin? 15 16 No. The majority of my family is from central 17 or Lincoln, Nebraska. 18 And generally what have you done in the last 19 year-and-a-half to familiarize yourself with the Basin 20 and the various interests in the Basin? 2.1 Α I've attended Compact meetings; the Republican 22 River Compact meetings. I've attended NRD meetings. There's a Republican River Coalition. I've attended 23 2.4 those meetings. I've met with my irrigation districts, 25 both in Nebraska-Kansas. I've met with my managing

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partners in Colorado to understand what the interests are of everybody involved. I've also worked on different groups here in the office preparing things like this Touhy request for this group.

Q Did you review that material that was produced in response to the Touhy request?

A I did.

Q And to the best of your knowledge, is that essentially a complete set of materials that is responsive, or is there anything that is still being gathered?

A There's nothing that I know of that's still being gathered. It's hard to say, you know, in the Republican River, that anything's complete.

Q Fair enough. What is your general understanding of the hydrology of the Republican River System? For example, is the system groundwater dominated or surface water dominated?

A I guess I have to -- the hydrology of the system, from my perspective as a manager for the Bureau of Reclamation is, over time, has been adjusted. Back before 1944 there were no dams on the system; no federal involvement. 1935 there was some serious floods that happened in the region; took the Republican River, I think, the end of May in 1935 to over 200,000 CFS. The

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Republican River averages, I think in the summer, somewhere between one and 3,000 CFS. And so I think from what I've read of the history, that kind of prompted the federal government to get involved to do studies about the hydrology in the Basin.

The Federal Government did some reports; wanted to build some dams in the area; through some reports indicated that they'd like to have a three-state compact or some type of similar agreement before they built these dams. That happened in 1943. There was a --don't know if I have the name of the Act right --1944 Flood Control Act; authorized us to start our projects. The Bureau started building projects in the Republican Basin, damming the Republican River and some of its tributaries, and started some irrigation projects. Irrigation projects serve over 120 some --over 120,000 acres of irrigated land with project water. The Basin receives no snow pack like typical basins were used to, in like the Colorado River, the North Platte River; doesnf t receive snow pack from the mountains. It mainly receives its water from groundwater and from precipitation.

- Q And do you know which of those latter two is the predominant source of water for the river?
  - A I don't know the answer to that question.
  - Q Maybe it wasn't very well worded. Did you

15 Aaron Thompson -- direct 1 understand my question? 2 I think I did, yeah. 3 0 Okay. Which is more -- and I think that's a -- I think 4 Α in our Touhy request that could be a Marv Swanda- type 5 6 question. He's a little more knowledgeable in the 7 operations. 8 You mentioned that you had -- Thank you. You 9 mentioned that you had attended some RRCA meetings; is that correct? 10 11 Α Uh-huh. 12 THE REPORTER: Yes? 13 THE WITNESS: Yes. 14 (By Mr. Wilmoth) For the record, what is the Q RRCA? 15 16 Α Republican River Compact Administration. 17 And do you typically view those meetings as a 18 participant --as an observer or do you participate as an 19 active participant in the RRCA deliberations? 20 I think the answer is both. During their 21 yearly meeting we present data on the, I guess, water 22 resources in the Basin; what the deliveries were; what 23 our deliveries are estimated to be for the following 2.4 year.

When is that information presented?

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A I believe that's in the August time frame of each year.

Q And do you present that data at any other time, or comparable data at any other time during the year?

A Only -- We present only if requested at the other meetings, and that's where I initially went back to, some meetings are participant, some were observation, viewers I guess at the meeting. And that's -- those other meetings I would say we were typically just there as observers.

Q And you mentioned earlier that you present data usually in August; is that correct?

A That's my memory of when the annual meeting is, yes.

Q And then you also provide information on the quantity of water in storage at Harlan County Lake; is that correct?

A Correct. According to the final settlement stipulation, we're responsible for determining the --if the irrigation amount in Harlan County Lake is above or below 119,000 acre feet. And we do that monthly, starting in October, I believe.

 $\,$  Q  $\,$  And those early assessments, those are projections, is that correct, or what you think might be the storage, or is that a --

	Aaron Thompson direct	17
1	A I'm going to	
2	Q final determination. Maybe you could	
3	describe that for me?	
4	A I'm going to let Marv Swanda answer that	
5	question.	
6	Q Do you ever attend the RRCA technical commi	ttee
7	meetings?	
8	A I have attended them in the past, yes.	
9	Q And I would ask the same question with rega	rd
10	to those meetings. Do you typically attend those as a	n
11	observer or a participant?	
12	A I would say typically, as an observer.	
13	Q Do you recall in the last year-and-a-half o	r so
14	since you've been here, ever providing any information	n to
15	the technical committee?	
16	A I don't remember providing any.	
17	Q Do you know if anyone in your office has do	ne
18	so?	
19	A I do know that Marv Swanda and Gordon Aycoc	k
20	attend those meetings. Sometimes they are held via ph	one,
21	and I don't know what, ifI just don't know what	
22	information they may have provided the group.	
23	Q Have you reviewed the Republican River Comp	act?
24	A Yes.	
25	Q And what's your general understanding of th	е

## Compact?

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A I think my general understanding of the Compact is that it describes how the states divide the water that is in the Republican River Basin. And the original Compact, as well as the final settlement stipulation generally tries to promote fairness; tries to prevent conflict. It also tries to get collaboration between the states on how that water is divided.

- Q It's working like a charm so far, isn't it?
- A No comment.

(Laughter)

- Q Now you mentioned both the Compact and the FSS, the FSS being the Final Settlement Stipulation.
  - A Correct.
- Q And you --are you familiar with the FSS? You've reviewed the FSS?
  - A I have.
- Q And how does --Let me correct my grammar. How do the federal projects fit into the Compact and FSS in your view?

A From my view the Compact and the FSS, you know, as I've said, have to deal with dividing water. Our projects retain a lot of water in the Republican River Basin. This affects the accounting, and from my understanding, in many different ways. One is

Aaron Thompson -- direct 19 evaporation. 0 Do you know about how much water is lost off of federal projects to evaporation, annually? I don't. Α Would Mr. Swanda know that? We can ask him. The federal projects -- Could you repeat the question? My question was just generally how --your Q understanding of how the federal projects fit into the Compact and the FSS. So one way they fit in is they retain a lot of water; they are --because they retain water, the FSS, they have an evaporation component. They deliver water to our irrigation projects which passes by gages and accounting check points. I don't think check points is the right use --word to use, but accounting stations. And when that water is released or moved in the Basin for irrigation districts, that affects the accounting and the Final Settlement Stipulation in the Compact, which I think is kind of our -- In my opinion, power projects most affect the Compact.

So in your understanding of the Compact and the

There's federal storage use rights; there's, I

FSS, is there any federal water right in the projects?

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20 Aaron Thompson -- direct 1 think, a few federal natural flow rights. There are 2 district-owned water rights in the Basin, as well, 3 irrigation district. Are those irrigation districts organized under 4 state law? 5 6 I don't know how they are legally organized. 7 They have to follow state law. 8 One of the fundamental components of the FSS is 9 the accounting procedures. Do you know what I mean when 10 I refer to the accounting procedures, generally? 11 Α Generally, I do, yes. 12 Have you reviewed those accounting procedures? Q 13 Α I would say I have generally reviewed them, 14 yes. 15 And with regard to Compact accounting, would you agree that the accounting is generally retrospective 16 17 in nature? 18 That is my general understanding that the 19 accounting doesn't take place until after the irrigation, 20 or the water season is completed. 21 Does that create any difficulties that you're 22 aware of? 23 Other than the general difficulty of accounting Α 2.4 for something that's already happened. 25 From a practical standpoint, does it create any

Aaron Thompson -- direct 21 1 problems with your, shall I say customers for lack of a 2 better word? 3 To my knowledge it doesn't affect our deliveries; how we account for our deliveries and how we 4 make our deliveries to our irrigation districts. 5 6 It occurs to me that you wouldn't probably 7 wouldn't be sitting here today if you weren't asked by the State of Kansas to opine on some of these issues. 8 9 You can thank Mr. Draper for that. 10 (Laughter) 11 When were you contacted about being a witness in this case? 12 13 I'm going to have to go with general time 14 periods here, but I would say a couple of months before I 15 got the formal letter from Mr. Draper. 16 So was that maybe in December of 2008? 17 I'm just -- In that time period. Α 18 Give or take a month? 0 19 Late 2008, early 2009, yeah. Α What were you told about the nature of these 20 21 proceedings? 22 The proceedings today, or --Α 23 The nature of this dispute that we are meeting 2.4 on today. 25 I think, generally speaking, I was informed

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about the parties entering into a non-arbitration request; the fact that they were calling witnesses, and that they requested my -- requested that I be a part of a witness list that was submitted. I would say it was very general in nature, and I pretty much immediately had -- was out of my legal authority and transferred him to Mr. Chaffin to discuss how that's done within the Federal Government.

Q Do you recall what you were asked to do in preparation for this proceeding?

A I was given a list of 13, 14 questions to answer and prepare the documentation for in preparation of that Touhy request.

- Q And were you provided with materials by the State of Kansas --
  - A I was given --
  - Q -- to assist your analysis?

A The only materials Kansas gave me was the question, the letter with the questions and attached to that was a letter I had sent Mr. Lavene from the Attorney General's Office in the State of Nebraska.

- Q Have you reviewed any of the technical analyses conducted by the State of Kansas in this proceeding?
- A I've been given documents at the Compact
  Administration meetings. I've been given documents at

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presentations by all states, and I've reviewed those.

I've been given copies of the arbitrator; the documents that were sent to the arbitrator. I haven't reviewed page for page, but have looked through; and, of course, the arbitrator's -- one of the arbitrator's first decisions.

- Q So within that group of documents, I assume you've received and at least given a cursory review to each of the expert reports provided by all of the states?
  - A Yes, I have.
- Q And do you understand that the State of Kansas has made you a witness solely in the portion of this arbitration that relates to future Compact compliance?
- A I understand I have been named as a witness. I didn't -- the part you added about future Compact compliance, I didn't pay attention to or was unaware of.
- Q Okay. Do you recall reviewing the reports prepared by the State of Kansas and the State of Nebraska concerning future Compact compliance?
- A I recall reviewing the reports on the -that were given to the arbitrator. I can't specifically
  remember if they said future or not.
  - Q Sure.
  - A I do know they talked about the future.
- Q They were only a few thousand pages. You

Aaron Thompson -- direct

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haven't memorized them all I assume?

A I haven't, no.

(Laughter)

- Q Fair enough. Do you have any general opinions that you recall formulating about those reports?
  - A I quess more specific --
- Q Do you have any opinions about any of those reports?
  - A Well --
- Q And if I may, I can narrow that just by referring again to the framework of future Compact compliance. There were at least a couple of reports that related to that topic. I recognize there were a lot of reports if you don't recall anything off the top of your head, then I understand.
- A I guess I've reviewed this information, or this type of information, and many times I have heard the same -- maybe not the same, I've heard a lot of -- As we've been to the RRCA meetings, I've heard a lot of the same conversation, you might say, that was in the reports. And I would say I didn't develop any -- I have opinions on -- of course as a human being on all sorts of topics, and, here, specifically the Republican River, but --
- Q And we'll talk about those later, but just for clarity sake, for example; I infer from your response

25 Aaron Thompson -- direct that you've conducted no analysis to evaluate the 1 2 conclusions in those reports? 3 That's, yes, I have not conducted any analysis. And you haven't directed anyone in your office 4 to do that? 5 6 No, I haven't. 7 Thank you. I also infer from your discussion 8 and your current position that you are not being 9 compensated for your appearance here today; is that 10 right? 11 Α Absolutely not. 12 Am I also correct in understanding that you've Q 13 had no meetings prior to this meeting with the State of 14 Kansas concerning this testimony? 15 Α No. 16 No, you have not? 17 No, no meetings. Just to clarify, we've had a 18 few phone meetings to set up, how to submit this request. 19 Just some logistics? 20 Logistics, but most of those were handled 21 through -- after the initial request through John Chaffin. 22 23 Very good. Let's transition and talk a little 2.4 bit about some things with which I'm sure you're more 25 familiar, the Bureau projects, generally. Can you walk

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me through the primary Bureau projects in the Basin?

- A If you don't mind, I'm going to --
- Q Certainly.

A Just so I don't forget any. I'll kind of run from upstream to downstream just to make it fair in the Republican River Basin. One of our first projects is the Bonny Reservoir on the South Fork of the Republic River, just on the border of Kansas and Colorado.

One of our next reservoirs is Trenton Dam, or Trenton Dam Swanson Reservoir. That's actually on the Republican River. Frenchman Creek comes in the Republican River after that, and near Imperial is Enders Dam, which is operated --Both Trenton and Enders Dam are operated and maintained by the Bureau of Reclamation. Bonny Reservoir is also operated and maintained by the Bureau of Reclamation. Bonny Reservoir has a -- doesn't have any irrigation component, and has an agreement with the State of Colorado for a managing partner there.

The next facility, Red Willow Dam or Hugh
Butler Lake on Red Willow Creek, which runs into the
Republican River just downstream of McCook, Nebraska. We
also have Medicine Creek Dam which runs -- or Harry
Strunk which runs into the -- off of Medicine Creek into
the Republican River just downstream of Cambridge,
Nebraska. Then there is a Corp of Engineers facility,

Aaron Thompson -- direct

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Harlan County Lake. We do not operate or maintain that lake, or that dam. It's -- that's operated and maintained by the Corp of Engineers. But we do have storage rights to that reservoir.

And then the one in Kansas off Prairie Dog Creek that I think is Norton Dam, Keith Sebelius Lake.

THE REPORTER: Keith what lake?

THE WITNESS: Sebelius. Make sure I said it right.

THE REPORTER: Okay. I will get the spelling from you when you are done.

THE WITNESS: Thank you.

Q (By Mr. Wilmoth) And that's top to bottom, the complete --

A Top to bottom. I got out my notes for a reason. The Lovewell Dam, which receives water from Republican River through a canal in Kansas, and then has an irrigation component for the Kansas Bostwick irrigation district.

Q And just for sake of convenience, would it be possible to obtain just a photocopy of that and make it part of the transcript?

A Okay.

MR. WILMOTH: That would be Exhibit 1, I suppose.

	Aaron Thompson direct 28
1	THE REPORTER: Okay.
2	(Exhibit 1 was marked for identification. See
3	Index.)
4	MR. WILMOTH: It will make it easier for
5	everybody later, probably.
6	Q (By Mr. Wilmoth) And just briefly, would you
7	just touch on the districts that are associated or served
8	by those facilities?
9	A I'm going to leave that for Marv Swanda, if you
10	don't mind. I apologize for any inconvenience that
11	causes.
12	Q Not a problem. You mentioned that these
13	facilities began construction in the mid 1940s; is that
14	correct?
15	A Uh-huh.
16	THE REPORTER: Yes?
17	THE WITNESS: Yes.
18	Q (By Mr. Wilmoth) Do you know, generally, what
19	their expected yield was at that time?
20	A I know the storage, expected storage in the
21	facilities. The total active conservation storage in the
22	seven federal reservoirs was 480,051 acre feet.
23	Q And what is the source of that data?
24	A The Definitive Plan Report.
25	Q And that's the DPN for each project?

29 Aaron Thompson -- direct 1 Α The DPR. 2 0 The DPR, excuse me, for each project? 3 Α Correct. So when you add those up individually, you 4 0 arrive at 480,051 acre feet; is that right? 5 6 To be absolutely sure, I'm going to let Marv 7 Swanda answer this question. 8 Q All right. 9 Α That's my understanding though, yes. That's fine, that's fine. No problem. 10 Q 11 Α I don't mean to be an engineer. 12 No problem. And do you know what the Q 13 expectations were with regard to the water supply 14 available to meet that storage in 1940? 15 I know that the projects were planned, the 16 storage reservoir projects, during their design and their 17 analysis of these projects, they were designed to fit 18 within the hydrologic conditions of the reservoir at that 19 time, and to meet the needs of the Compact, as well as 20 meet the needs of the irrigation districts that were 21 operating from these reservoirs. 2.2 I think I understand the point you make about 23 meeting the needs of the irrigation districts. What do 2.4 you mean by meeting the needs of the Compact?

Assuring that each state was in their -- making

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30 Aaron Thompson -- direct sure that the reservoirs wouldn't bring the states out of compliance with the '43 Compact. And do you know what analysis was conducted to make that assurance? I know there are many reports. I think one was cited in our Touhy request, but there's many reports that were done in the late 30s early 40s with Reclamation engineers and scientists, but I'm not familiar with those reports, the details of all those reports. And I understood you to say that the projects were designed to fit the, then existing hydrologic conditions, essentially; is that right? Α Yes. And do you have any idea how much water was projected to be available in the system at that time? I don't know the projected inflows or projected stream flows. I know the projected water delivery amounts for the irrigation districts were 18 inches. Is that uniform throughout each of the districts? That appeared to be uniform throughout each of

So that would be the same in Frenchman as it

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the Republican districts.

Yes.

is, for example, in Kansas Bostwick?

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Q In the 1940s, would you agree that groundwater pumping was not terribly prevalent yet?

A Yeah, I would agree, it wasn't prevalent, but it was mentioned in some of those reports, but definitely I would agree, it's not prevalent.

Q And do you recall whether the Bureau made any assessment of the impact of groundwater pumping on its facilities at that time?

A I don't recall if the Bureau made -- what kind of assessment they made from the limited groundwater pumping or -- that was happening in that time frame, meaning the early 40s, the mid 40s.

Q Do you believe the Bureau was aware of the fact that groundwater pumping was occurring in some fashion?

A I think they were because of the fact that they made mention to it in some of their reports.

Q Are you aware of any account that was made by the Bureau for the impact of that groundwater pumping in the future? In other words, was that considered at all in designing the project?

A I'm not aware of what impact they accounted for, groundwater pumping in the future. My recollection is it was mentioned as limited.

Q It being groundwater pumping or impacts?

A It being the impacts from groundwater pumping.

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Q Do you know --Strike that.

Getting back to your statement that the projects were designed to deal with the, then, existing hydrology, do you recall the period of record on which that was based?

- A I do not.
- Q Sometime prior to the 1940s though, I assume?
- A I would assume so, yeah.
- Q Do you have any understanding of how the hydrologies have changed since the 1940s, or would it have been basically the same in terms of precipitation, specifically?

A I could speak to the general reports and information I have seen from my hydrologist and folks I rely on is, they've given me charts and graphs, which I submitted in this documentation illustrating precipitation levels. Generally speaking, they stay about the same throughout time, wherever that's at.

Q How about the water supply in the Basin?

A The water supply for me is most -- is easiest to describe as ability to deliver to our customers, and that has decreased throughout time.

Q When the facilities were designed, did the Bureau plan for periods of low water with their supply?

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A I think that's a trademark of Reclamation. They

-- The reservoirs are anticipated to hold -- and this

varies throughout Reclamation, it varies throughout the

Republican River, but the reservoirs were designed to

hold more than one irrigation season allotment of water

to allow for times, to allow for dry periods and periods

of drought.

Q So they're designed to carry over water from one period to the next?

A Correct.

Q And obviously that water is intended to be used for something such as irrigation, for example?

A You're right. Irrigation isn't the only use, but it's definitely the predominant use in the Basin for the storage projects.

Q And is it -- At the time the projects were designed, is it your understanding that they were intended to be maintained as full as possible?

A The --I can't speak to each reservoir, but generally speaking, some reservoirs are designed to be full all year round. Some reservoirs require a draw down at the end of the season to decrease cost of maintenance, potential safety items with the dam, prolong the life of the dam, so I think it depends on which reservoir we specifically look at if it was designed to be full every

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year, or not. But with mother nature filling these reservoirs, I'm sure the designers didn't intend for them to be 100 percent full all of the time or zero percent full, so --

Q What's Reclamation's current view on that issue? Is it your desire to maintain them as full as possible?

A I think I will give you --try to give you a couple of examples to answer that question. For example, Lovewell Reservoir filled up last spring, or excuse me, it filled up in the -- right before fall as we were trying to get into a wintering elevation, so we had to release water from that reservoir to bring it down to what the designers feel is an appropriate wintering elevation. And that helps prevent shore erosion, sedimentation built up in our gates and other mechanical structures that we have at our dams.

Q Is that related to flood control in any way?

A Thank you. That's a -- Another component is so that there's adequate flood control. We can fill up to conservation levels. We also have conditions in which we can ask the Corp of Engineers to go into the flood pool. Reclamation is responsible for the operation of the dam when its in conservation mode.

When it passes the top of conservation, we have

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to consult with the Corp of Engineers. It's called flood releases, and they actually determine the amount of flood releases required if the dam isn't in flood pool; however, they allow us, at times during droughts and other scenarios, to actually store a small amount in that flood pool. But once it passes flood pool, we actually get control of the reservoir again, once it gets out of flood pool. So, yes, we have to make sure there's room for flood events, is the short answer.

Q Is the Bureau's desire to refill the reservoirs each year to support irrigation and other uses?

A For the benefit of our customers, the irrigation districts, and to the benefit of the tax payers to be able to collect revenue to pay back the facilities. We -- The Bureau does enjoy seeing a full reservoir.

Q Are there any recreation components of these reservoirs?

A There are.

Q Does the Bureau operate or authorize any recreation activities at the reservoir? A We have agreements at some of our reservoirs with managing partners. For example, we -- the Bureau of Reclamation has recently taken on the task with their managing partners in Kansas and Nebraska to update the

	Aaron Thompson direct 36
1	restrooms and shower facilities, which are considered
2	recreation components, to meet current ADA standards at
3	all our reservoirs.
4	Q Does the Bureau receive any loyalty or other
5	payment from recreation uses?
6	A I'm not sure what our exact component of
7	reimbursement is on recreation uses.
8	Q Are all of the reservoirs in the Basin multiple
9	use reservoirs?
10	A I would say, generally, yes, they are.
11	Q Do all of them have a recreation component, to
12	your knowledge?
13	A To my knowledge, they all have a recreation
14	component.
15	MR. WILMOTH: And just for Mr. Chaffin's
16	comfort. I don't mean that to be a legal question, I
17	mean from an operational standpoint we operate that with.
18	THE WITNESS: If I could, in ten minutes, can
19	we get a break, or whenever is
20	MR. WILMOTH: Absolutely. If you'd like a
21	break now, that's fine. Whatever works for you, that's
22	fine.
23	THE WITNESS: ThisSince I've already
24	interrupted, that would work.
25	MR. WILMOTH: Anytime, that's fine.

37 Aaron Thompson -- direct THE REPORTER: Off the record? 1 2 MR. WILMOTH: Yes. (Off the record from 9:13 a.m. to 9:28 a.m.) 3 (By Mr. Wilmoth) Mr. Thompson, let's continue 4 0 on our discussion of projects a little bit. 5 6 Okav. 7 How are the water rights held with regard to 8 the projects? Are those state-issued rights, and who holds them? 9 The --It varies who holds them. Generally 10 Α 11 speaking in our Kansas project, they're held by the 12 irrigation district. Generally speaking, for Nebraska 13 projects, they are held by the United States, at least 14 the storage use rights are. Specifically, I believe 15 there's a table in this documentation if you would like to go through them. 16 17 Which documentation are you referring to? 18 It was submitted with the Touhy request for Α 19 Kansas. 20 Sorry, that's fine. And let's talk a little 21 bit about the Nebraska projects. You mentioned those are held by the Bureau? 22 23 Yes, generally speaking, they are. Α 2.4 And by whom are those rights issued? Q 25 It's my understanding that those are issued by

	Aaron Thompson direct 38
1	thein whatever state you are in.
2	Q So, the Nebraska Department of Natural
3	Resources?
4	A Correct.
5	Q And has the Bureau sold or relinquished any of
6	its rights?
7	
	A To my knowledge, we have not sold rights, but
8	we have transferred rights in the past.
9	Q And just for sake of the record to clean up
10	something, you mentioned that the information regarding
11	the project water rights was located in some
12	documentation that you had previously provided?
13	A Yeah.
14	Q Can you identify that document for me?
15	MR. WILMOTH: Off the record.
16	(Off the record from 9:32 a.m. to 9:33 a.m.)
17	MR. WILMOTH: Just for the record, my
18	understanding is, Mr. Chaffin's offered to make that
19	material available, and when it's made available, we'll
20	make it part of the transcript record.
21	And I thank you for that, Mr. Chaffin.
22	Q (By Mr. Wilmoth) Does the Bureau hold any
23	natural flow rights?
24	A It's my understanding we have a few.
25	O Would that be reflected in this table?

	Aaron Tho	mpson direct	39
1	A	That would be in the table.	
2	Q	Do you recall which state those are in?	
3	A	I was thinking the Republican River, so	
4	Nebraska.		
5	Q	And who owns the infrastructure associated wi	th
6	the proje	cts?	
7	A	The title for the projects is held in the name	ne
8	of the Un	ited States.	
9	Q	And is the cost of that infrastructure	
10	currently	being repaid?	
11	A	It is.	
12	Q	By whom?	
13	A	There's different components that are current	ly
14	being rep	aid. As indicated in the request to Kansas, th	1e
15	construct.	ion cost is approximately 233 million. The	
16	component	that was given to irrigation was approximatel	- У
17	139 millio	on, of that, to be repaid by the irrigation	
18	districts	was roughly 39 million.	
19	Q	And what's the status of those repayments? Ho	WC
20	much of th	hat 39 million has been paid down today?	
21	A	I'm not prepared to answer that specific	
22	number.		
23	Q	Do you care to hazard a guess, would it be 50	)
24	percent?	More or less than 50 percent?	
25	A	I think it would be more than 50 percent.	

	Aaron Thompson direct 40
1	Q And what happens if those costs are not repaid?
2	A We've I guess we've had recent examples
3	where the districts have been unable to make payments.
4	And recent examples that I can think of were Frenchman
5	Valley was unable to make payment in 2003 and 2004 on
6	their 0 & M. And the Bureau of Reclamation allowed them
7	to defer payment and restructure their payment,
8	essentially their payment plan, over the life of their
9	contract.
10	Q Which is 50 years?
11	A Forty years.
12	Q Forty years. You mentioned that the Bureau
13	owns certain storage rights, and that the Bureau holds
14	title to the project infrastructure; correct?
15	A Correct.
16	Q Do any of the individual customers Is that a
17	familiar Is that a legitimate term? What do you
18	prefer to use?
19	A I think customers, if we are referring to the
20	Bureau of Reclamation's irrigation districts as
21	customers, I typically do that.
22	Q A kinder, gentler, Reclamation. Serving the
23	customers.
24	(Laughter)

Do the customers own the land served by the

Aaron	Thompson		direct
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projects, or does the Federal Government own that land?

- A The customers own the land.
- Q And do the customers put the irrigation water to beneficial use?
  - A Yes.

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Q So the Bureau does not actually irrigate any ground?

A No. We do have easements on some of that ground, as specifically through some of their property, so that we can maintain laterals or buried pipes, which there used to be laterals.

Q In your efforts to serve a particular project, are each of the reservoirs operated jointly would you say, or in tandem, or is each individually operated regardless of the status of the others?

A I guess I would answer that question -- I would say it's a collaborative approach, so it's jointly operated. We don't operate one reservoir so that it would harm another irrigation district.

Q Do you balance the reservoirs as a policy? Balance their capacities, excuse me. I don't mean the capacities, I mean their volumes, excuse me.

A In the Republican River, it's not my understanding that we try to do any balancing, we simply deliver water intended for whichever irrigation district

42 Aaron Thompson -- direct has requested the water. 0 So if irrigation water is carried over in Enders Reservoir, for example, is that water retained for use from Enders, or is it ever sent down to Harlan County for use on the --It's --Once the water is stored, it is what we call project water, and it is used only for project purposes, whether that be year one or year five. But when you say, "project purposes", you're referring to the project directly served by Enders? Α Yes. You're not referring to the project globally as 0 the Republican River Basin? Α Correct. Okay. And has project water ever been utilized 0 for Compact compliance? Α Yes. When did that occur? Q To my knowledge, that first occurred in 2006. Α Can you explain the circumstances of that? Q Α I believe the State of Colorado -- excuse me, the State of Nebraska requested the use or lease of

natural flow rights on the Frenchman Valley and Riverside

natural flow, to my understanding, is not in our name, it

Irrigation Districts, and that -- those two districts

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is in their name, and that was a deal between the State of Nebraska and those two districts. In 2006 though, we did sell, or lease storage water from the Bostwick Irrigation District in Nebraska. And also, natural flow at Guide Rock Diversion Dam from the Bostwick Irrigation District in Nebraska. That was a 2.5 million dollar contract between the Bostwick Irrigation District and Department of Natural Resources, State of Nebraska. And also included a component since the Bostwick Irrigation District wasn't going to make deliveries and collect revenue for that money to pay their 0 & M assessment on Harlan County Dam, which they are assessed by the Corp of Engineers through Reclamation.

Q And what was the Bureau's role in each of those processes? First, let's talk about the natural flow purchase.

A I think the Bureau, from my understanding, I wasn't here, but the Bureau of Reclamation's role was to make sure that the irrigation district, or the component of the Reclamation project were not harmed, or in any way, used inappropriately.

Q What do you mean by harmed?

A Making sure we didn't --I guess I was thinking, making sure we didn't sell water that belonged to somebody else, or water that belonged to somebody

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else, or was diverted past another irrigation district that might have received that water. I think we were not party or signature to the agreement, just involved from a technical point of view for the process in the State of Nebraska in those two natural flow cases. And the other case we're responsible for the accounting of that water.

- Q So the Bureau's approval was not required for that transaction?
- A In 2006 the Bureau did sign a document for the transfer of water from Kansas --from Nebraska Kansas

  Bostwick Irrigation District to Kansas Bostwick

  Irrigation District.
- Q Okay, I want to make sure I don't conflict these in my own mind. I'm talking about the natural flow purchase from the districts.
  - A Correct. We were not signature to those.
  - Q But now, let's talk about the NBID purchase.
  - A Okay.

THE REPORTER: The what?

MR. WILMOTH: I'm sorry. The Nebraska Bostwick Irrigation District, N-B-I-D.

THE REPORTER: Thanks.

Q (By Mr. Wilmoth) Now, you mentioned that there was a natural flow component to that purchase, and a storage component, correct?

	Aaron Thompson direct 45
1	A Correct.
2	Q And is the natural flow component handled the
3	same way as the one we just talked about, in other words,
4	was the Bureau involved directly in the natural flow
5	component?
6	A I don't remember.
7	Q Okay. How about the storage component?
8	A Yes, the Bureau was involved with that.
9	Q In what capacity?
10	A We had an amendment to the Kansas and Nebraska
11	Bostwick contract to transfer the water from one district
12	to the other district.
13	Q And Reclamation was a signatory to that, was it
14	not?
15	A Yes, it was.
16	Q What factors did you evaluate when the
17	Strike that. I don't want to put words in your mouth.
18	What factors did you evaluate when you approved, for lack
19	of a better word, that transaction, or approved of that
20	transaction?
21	A I think the factors the first factor was to
22	make sure that we didn't harm another irrigation district
23	within our projects, or outside our projects, but I'm
24	only aware of project irrigation districts and

Reclamation districts downstream. I think that was the

Aaron Thompson -- direct

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first thing. We also wanted to make sure that it didn't violate any environmental actions that we had already had prepared, make sure -- and I think one of the key things in there was to make sure it mimics an irrigation season so that it doesn't fall outside our current NEPA requirements.

THE REPORTER: What requirements?

THE WITNESS: NEPA.

THE REPORTER: Spell it, please?

THE WITNESS: N-E-P-A.

THE REPORTER: Thank you.

Q (By Mr. Wilmoth) Would you explain that just a little bit to me?

Again, I don't mean from a legal standpoint, Mr. Chaffin, but from an operational standpoint.

Mr. Thompson, what is important about that?

A It's important that we don't violate the
National Environmental Protection Agency's guidelines for
our projects and we've -- when each project or each
contract is entered into with an irrigation district, we
perform whatever is necessary, whatever environmental
assessments are necessary to make sure that the project
is operating within their criteria. If we operate
outside of that criteria, we risk violating those laws,
and we try never to violate any state or federal law.

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Q So if I understand correctly then the amendment triggered some obligation in your view under NEPA to conduct an analysis of the environmental affects?

A Correct. And when the amendment indicates that the water will be used as normal irrigation season, or within a normal irrigation season. I think in some cases, it said the word, "mimics" irrigation season.

That triggers a, what we call a C-E-C.

- Q Is that a categorical exclusion?
- A Correct.
  - O From NEPA?

A From NEPA. And those are relatively easy to go through the checklist and see that, okay, you're really not falling outside your guidelines of how you were going to operate, and how you were going to draw down, or draw up the reservoir, and relatively easy procedure to go through.

- Q And if a request were made to deliver water outside the irrigation season, that might trigger some more of this NEPA restrictions or requirements?
  - A Correct.
- Q Is there any comparable NEPA trigger in your understanding to the movement to the natural flow water?
  - A No, not to my understanding. Maybe when --
  - Q I'm sorry.

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A One of the key things is natural flow. In these examples, was, it's not stored as -- it's not considered project water and we were unable to store natural flow, and that falls within the NEPA requirements and our project requirements.

Q And if I understood you earlier, you indicated that Reclamation was not a party to those contracts, and again, I don't mean a legal -- to ask you for your legal opinion, but procedurally, if it's a natural flow situation, it is unlike the NBID KBID contract and there's not amendment. And is that why there is no NEPA requirement in your understanding?

A Correct.

Q Okay.

THE REPORTER: You said the NBID and the what contract?

MR. WILMOTH: Kansas Bostwick Irrigation District, KBID contract.

THE REPORTER: Thank you.

Q (By Mr. Wilmoth) And, again, for the record, I'm just asking procedurally what you're looking at, not what your legal obligations are.

A Right. Procedurally, we didn't -- for those natural flows, we didn't do any environmental assessment that I know of.

49 Aaron Thompson -- direct 1 Q Okay. You mentioned that the Corp of Engineers 2 operates Harlan County Lake, for the most part; is that 3 correct? Yes. Operates and maintains Harlan County Dam. 4 Α Does the Corp of Engineers have an interest in 5 6 any of the other projects? No other than what I said earlier when the 7 projects enter into flood pool, they have an interest in 8 9 how they're operated. Is that true in regard to each of the 10 11 individual facilities? 12 Each one of them, yes. 13 Okay. So the Corp has a role, essentially, in 14 the flood pool? 15 Α Correct. 16 The management flood pool? 17 Α Yep. 18 Obviously one of the reasons that you are here 0 19 today is because you have expressed some views on some 20 concerns about certain activities in Nebraska that may 21 have affected those on the projects. Have you discussed 22 those concerns with the Corp of Engineers? 23 No, I usually try to copy the Colonel on Α 2.4 documentation that is sent to any of the three compact

states, but no conversations.

50 Aaron Thompson -- direct 1 0 To your knowledge? 2 Α To my knowledge over those concerns. 3 So, to your knowledge, does the Corp of Engineers share the concerns that you have expressed? 4 I don't know. 5 6 Let's talk a little bit about some of those 7 concerns. And just kind of, generically, I will talk about a couple, and then I'll turn directly to a couple 8 of documents. Am I correct in understanding that 9 Reclamation is generally concerned about an increase in 10 11 groundwater wells in Nebraska? 12 Α Yes. 13 Could you describe that concern, briefly, for 14 me? 15 We've seen a sharp increase in a number of 16 groundwater wells throughout the Republican River Basin, 17 and we've seen a decrease in our water supplies to our 18 projects. 19 And do you know, generally, where these wells 20 are located relative to the stream? 21 Α It varies. 22 Do you have a concern about all the wells 23 regardless of their location, or are some wells of 2.4 greater concern to you?

I think we have a concern with all the wells.

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That concern comes from, if a well is obviously close to the river, it can affect the flows quicker. If it's farther from the river, it does take a long, long time, but we want to remain, I think, objective to the system as a whole, so we are concerned with any well that affects stream flow to the river.

Q And you've studied the affect of these wells on stream flow? Have you? That's a question, sorry, not a statement.

A Personally, I've been given information by my hydrologist, and others, within Reclamation, that have looked at these wells, and the number of wells in our project deliveries.

Q And aside from your testimony, I didn't see any -- I don't recall seeing any analysis, modeling analyses, for example, of the impact of these wells. Has that been conducted, and is that available to us?

A Model analysis, it was referred to in some of the testimony was given to us by the State of Nebraska.

Q Okay, so that's what you're predominately relying on for your conclusions about well impacts?

A No, I would say that's one thing we rely on.

Q Okay.

A I would say we look at -- I would say the group as a whole looks at precipitation, snow fall, groundwater

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levels, groundwater pumping, conservation practices.

- Q But you're not aware of any modeling that the Bureau has done to analyze the affect of these wells on the river?
  - A No specific Bureau modeling, no.
- Q Do you know whether or not groundwater withdrawals in Nebraska have increase or decreased since 2000?
- A I can't tell you if they've increased or decreased since 2000. The actual volume of water?
  - Q That is what I mean, yes.
  - A Yeah.
- Q Thank you. Are you familiar with something called an Integrated Management Plan?
  - A Yes, I am.
- Q Can you explain, for the record, what an Integrated Management Plan is?

A I think, generally, an Integrated Management
Plan is to --was adopted under LB 962, the State of
Nebraska, for basins that were designated by Department
of Natural Resources as either fully- or overappropriated. The Integrated Management Plans are jointly
developed by this DNR, and then NRD, affected by the
appropriate designation, either fully- or overappropriated. They have goals of achieving equity among

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water users and managing the water in the appropriate NRD.

- Q Have you read each of the current IMPS, Integrated Management Plans?
  - A I have read them.
- Q What do you understand to be the primary tool that the NRDs intend to use, Natural Resource District, intend to use in the IMPs to manage water?

A The primary tool in the IMPS, specifically in the Republican River, the three NRDs that have IMPs in the Republican River, their primary tool to manage water is control of groundwater pumping. Other tools they intend to use are surface water leases or purchases; repairing and management. But to your question, the primary one would be controls or limits on groundwater pumping.

Q And how do you understand those to operate?

A It's my understanding that the Upper Republican and the Middle Republican NRD assigned a value to the 1998 through 2000 to pumping levels, and took a 20 percent cut from those pumping levels in their latest Integrated Management Plan. The latest meaning, I think they had an Integrated Management Plan in '04, but it was revised in '07.

The Lower Republican NRD has taken nearly the

I'm not asking you for the specific number,

just the concept. Do you recall seeing that concept?

As a maximum depletion?

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Yes.

## 55 Aaron Thompson -- direct Α Rephrase your question. Maybe I'm not understanding your -- I understand that they would pump to the 20 percent below these 1998 to 2002 levels. And how does that relate to the individual users? My understanding is, that would correspond to an allocation that they could put on their crops. So do you know what would happen, under the IMP, for example, if an NRD exceeded it's overall groundwater limit -- withdraw1 limit? I don't know what would happen. And with regard to these individuals using less 0 water in one year and more in another, is that this concept of carrying over that you are talking about? Correct. Α So if I understand you, you're not sure how the carry over provisions relate to the overall withdraw1 limitations NRD wide; is that right? That's fair, yes. Have you conducted, or has the Bureau conducted any modeling work to determine the effectiveness of the

IMPS in ensuring future Compact compliance?

No Bureau modeling work.

formulate an opinion about that?

Have you relied on the work of others to

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	Aaron Thompson direct 56
1	A I have.
2	Q Whose work?
3	A I've relied on DNR's work and
4	Q Is that the Nebraska Department of Natural
5	Resources?
6	A Yes.
7	Q Do you consider that work to be reliable?
8	A Yes, I do.
9	Q I have a couple of documents I'd like to
10	transition into now. I have copies of these. I only have
11	five copies, but I think that should be sufficient. This
12	is would be Exhibit 3?
13	THE REPORTER: Three, right.
14	Could I have Exhibit 2 to mark, please?
15	MR. CHAFFIN: Yes.
16	THE REPORTER: Thank you.
17	MR. WILMOTH: Thank you.
18	(Exhibit Nos 2 and 3 were marked for
19	identification. See Index.)
20	Q (By Mr. Wilmoth) Mr. Thompson, do you recognize
21	this document? Take a minute to familiarize yourself if
22	you need to.
23	A (Witness examining document) I do. It's
24	interesting that it doesn't have a signature or a date on
25	the front of it.

	Aaron Thor	mpson direct 57
1	Q	I'm principally interested in the January, 2008
2		provided to the NRD, which is an attachment to
3	that docur	
4	A	Okay.
5	Q	Did you prepare this testimony?
6	A	I did, as well with my in conjunction with
7	my staff.	
8	Q	Would that include Mr. Swanda?
9	A	Yep.
10	Q	Who else would that include?
11	A	That would include Marv Swanda, Gordon Aycock,
12	Patrick E	ger.
13	Q	The same group you mentioned earlier?
14	А	The same group, and probably a few others.
15	Q	Is there any data available that supports this
16	testimony	that has not already been produced for the
17	states?	
18	A	To my knowledge, it has been produced somewhere
19	in the	
20	Q	In the Touhy request response?
21	A	In the Touhy request or the FOIA request from
22	Nebraska?	
23		THE REPORTER: What is the second request you
24	said?	
25		THE WITNESS: FOIA request made by Nebraska.

Aaron Thompson -- direct 58 THE REPORTER: Spell that. 1 2 MR. CHAFFIN: F-O-I-A. 3 THE REPORTER: Thank you. (By Mr. Wilmoth) Can you just briefly describe 4 0 5 what this testimony is? 6 This is testimony to the Middle Republic and Natural Resource District's Integrated Management Plan. 7 8 And this was provided concerning the most 9 recent IMP; is that correct? 10 Α Correct. 11 And I wanted to ask you about some of the 12 statements contained in there. The first statement is, I 13 believe located on page one. You indicate, quote, the 14 development of these wells have significantly impacted 15 the water supply for the federal projects. What did you mean by significantly? 16 17 Let me find the quote again. Do you know what 18 paragraph it's in? Okay, significantly, you asked what I 19 meant by significantly? 20 0 Yes. 21 The -- I meant the -- significantly the amount 22 of deliveries and inflows to our project water supply and 23 for our project water supply. 2.4 So by significantly, did you mean if affected Q

those things in a large volume, or that if affected them

59 Aaron Thompson -- direct 1 average, I threw out five percent as a number that's --it 2 would be close to average, so --3 Okay, close to the historical average in that plan? 4 Close to the historical average. 5 6 Okay, and by impacted, do you mean deprived of 7 water or something different? 8 Impacted meaning, yeah, not having water. Not 9 having the reliable water sources or not having the 10 amount of water they had in the past. 11 And by water supply, did you mean the water 12 flowing in the river? 13 I guess, in my mind I could think of water 14 supply either as water flowing in the river or water 15 available for water delivery, but, if you have more of 16 one, you have more of the other. If you have more water 17 flow, you have the ability to store more water. So I 18 guess, I specifically don't remember which one I might 19 have been thinking of there. Okay. And by federal projects, I assume you 20 21 meant the Republican River project? 22 Α Yes.

Are there any projects that were more

All of them?

Yes.

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significantly impacted than others, in your view?

A If we're talking Republican River-wide, yeah, there are projects that have seen more significant decreases than other ones.

O And which ones are those?

A Off the top of my head, more significant ones were Enders, Trenton, or excuse me, Swanson. Ones with lesser significance were Red Willow, or excuse me, Medicine Creek Dam. I did not mean to say Red Willow; and Harlan County.

Q Moving down to the last sentence on this first page of your testimony, you indicate, quote, this uncertainty could negatively affect the irrigation districts and Reclamation's willingness to enter into similar agreements in the future, close quote. Now I understand from your earlier discussions that you are not here to testify about Reclamation's willingness to do anything with regard to contracts in the future; is that correct?

A Correct.

Q Okay. But at this time, what did you mean by Reclamation's willingness?

A I believe at this time --I was just reading the sentence above that. I was trying to get some context for what was going on. The NRD had entered into

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contracts with some of our irrigation districts. There was some litigation that caused payment for those water deliveries to be delayed. My recollection at this point in time, payment had not been made for the water that had been purchased.

Q So if Reclamation wasn't going to get paid, it wasn't going to be willing to continue arrangement?

A Well, if our irrigation districts --Reclamation did not receive any of that payment, or irrigation districts received that payment, which I guess, in turn, may have helped them make 0 & M payments to Reclamation; however I don't think -- just going back to that last statement, I don't think any of that money was used for that.

But, yeah, when I meant negatively affect the irrigation district and Reclamation's willingness, there was a concern that if they didn't get paid for this water, there would be a, at that point in time, a difficulty with the contracts that were being contemplated at that time.

Q Was this one of the natural flow purchases which you were referring to, or one of the -- was this one of the --

A I was --

Q --purchases in which Reclamation was a party?

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A One of which Reclamation was a party to, which would have been the sale of Harry Strunk water, project water through the Frenchman Cambridge Irrigation District.

Q Let's turn to page two of your testimony, if you would, the first sentence under the word, "concerns", or the heading "concerns." You indicate, quote, Reclamation is very concerned with Nebraska's failure to meet Compact compliance, closed quote. What did you mean by that?

A I meant Reclamation -- I guess just rephrasing the sentence, Reclamation was this concern that at that time, that the numbers we were seeing, that the State was out of compliance with the Compact based on the numbers that were presented to us at our RCA meetings.

Q And how does that affect Reclamation directly?

A I think that affects Reclamation through the IMPs, the part of the IMPs, the goals to purchase water in the dry years. Reclamation has been a willing participant in those purchases, and it concerns Reclamation that these purchases are affecting our irrigation districts.

- Q Because that translates into what, less revenue for Reclamation?
  - A That means the irrigation -- Yes, the

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irrigation districts may not have the ability to pay back what they owe for the construction costs of the projects, or their -- or -- well, I guess in that case they are not paying for the water supply because they are not getting one.

- Q So the paramount issue is the customers ability to repay the debt on the infrastructure. Is that what you mean by concern in this statement?
  - A I think that's one of the concerns that I had.
  - Q Any others that you can recall?

A Other concerns are as you -- if you sell water -- just off the top of my head. If you sell water, you may not operate a canal for a few years. There's some canals we haven't operated in five or six years. And the concern is when we turn these projects and these distribution works over to our irrigation districts, we expect them to be maintained as in-like condition that we turned them over in. And the longer that you don't operate or maintain a --or operate a canal, it does increase the maintenance on that canal.

Q So there are certain canals that are held -- that the title to which is held by the districts?

A I'm not going to --I don't know if it's title, but within the contracts, you're definitely responsible for the maintenance of the --

Aaron Thompson -- direct 64 0 For the 0 & M of the infrastructure? Yes, of the, what we call distribution works. Okay. So the -- With regard to those two issues though, the concern about Compact compliance boils down to effects on the Reclamation projects; is that a fair statement? Α Yes. Q And Reclamation's storage rights are issued pursuant to state law; correct? Α Correct. And the individual customers are subject to state law and the exercise of their water rights; correct? Α Yes. In the next sentence, you indicate Reclamation is even more concerned about the continuing depletion of inflows to federal reservoirs. By "even more concerned",

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A I think all those issues are related to the concern in the second sentence too.

Q So, if I'm understanding this testimony correctly, Reclamation is more concerned about the depletion of inflows to its projects than it is about

65 Aaron Thompson -- direct 1 Nebraska's failure to meet Compact compliance? A I --From 2 what I wrote there in that statement, yes, that's the way I wrote it. 3 4 0 Okay. And that's what --at that point in time, 5 6 that's the --that was the level of concern. 7 Has that changed? 8 Α No, I think that's our current concerns. 9 And throughout this document, then you go on to 10 attribute the problem of non-compliance and federal 11 reservoir impacts to Nebraska groundwater pumping; is 12 that a fair summary? 13 I'm sorry, could you repeat that again? 14 My understanding of your testimony was that you 15 attribute the impacts of Nebraska groundwater pumping to 16 be the primary cause of these declines in federal 17 reservoir levels, and the potential reason for non-18 compliance of the Compact. 19 Α Correct. 20 That's a fair summary of what --Q 2.1 Α That's a fair summary of the --22 And to what degree do you attribute groundwater 23 pumping as the cause of these things? Is it 100 percent; 2.4 is it 50 percent?

I think the number is closer to 80 percent.

	Aaron Thompson direct 66
1	Q What is that number based on?
2	A That number is based on, I believe testimony
3	given by the former director or DNR, Ann Bleed.
4	Q Do you recall when that was provided or where?
5	A Approximately March of 2007.
6	Q At a meeting?
7	A At a I think a meeting at the State
8	in the State Capitol.
9	Q Have you considered the impact of other
10	potential contributing factors such as conservation
11	practices?
12	A Yes.
13	Q Do you have any idea what the relative
14	percentage those have on flows?
15	A I do not.
16	Q Is there any Reclamation study underway to
17	evaluate that issue?
18	A There is. As part of the final settlement
19	stipulation, it's my understanding that Reclamation is to
20	work with both colleges in Kansas, or research institutes
21	in Kansas and research institutes in Nebraska to evaluate
22	the effects of conservation practices such as no-til,
23	terracing.
24	Q What's the status of those investigations?
25	A My understanding the at the last compact

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meeting we had that the project is near completion, and that -- is scheduled to be completed within, I believe, this year. It's the required time period for the completion of that study.

Q Have you heard of any preliminary findings related to that study?

A I have not. Marv Swanda may be able to answer that question with more detail.

Q Is Mr. Swanda participating in that study; do you know?

A To my knowledge, he is not participating.

Q And one of the other issues you mentioned earlier was evaporative losses off of the federal reservoirs. Are you aware of any quantification of that volume?

A I'm aware that our operations office does take into consideration evaporation off these reservoirs, and that is definitely a question Mr. Swanda should be able to answer in his testimony.

Q Okay.

A little later in your testimony, you indicated that, quote, federal projects were constructed based on the concept that project surface water rights would be protected. Does that sound familiar?

A It definitely sounds familiar.

Aaron Thompson direct 68
Q What do you mean by protected? Do you mean
legally or physically?
A I'd kind of like to read the context of where I
wrote that first.
Q Middle of the well, it's actually the very
next sentence. It would be "Federal projects were
constructed the middle of page two. Middle of the last
paragraph on page two. What did you mean by protected?
Did you mean legally or physically protected or
A I think I meantI meant both, meaning they
would be legally protected under state laws, and they
would be physically protected from any unauthorized
diversions.
Q And who did you contemplate would protect those
rights?
A From my knowledge, it's always been the State
of Nebraska would enforce the rights on the river.
Q Okay, and from whom did you think that
protection would be received? In other words, would you
be protected from surface water users or groundwater

users, or both?

Q

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Q

I think both.

Correct.

Under Nebraska state law?

And this is when the projects were constructed?

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A Yes. We're referring to when the projects were constructed and obtained these water rights, what the expectation was.

Q Okay, so the expectation was that the federal projects would be protected under state law for the groundwater pumping; is that correct?

A Correct.

Q Middle of page four under a section titled,

"Reality", second paragraph, you've got a statement there
about half way through that says, "Reducing groundwater
depletions will gradually allow the stream flow to
recover and result in improve chances of maintaining
long-term compliance." Do you see that?

A Yep.

Q What did you mean by "recover"? Did you mean pre-development levels?

A I don't think I was referring to any point in time in levels meaning pre-development; post-development.

70s or 80s I think I was --

Q Was there a hydrologic level of recovery you were talking about?

A I think I was referring to the fact that if you reduce that, that you would receive more as groundwater tables increased. You would receive more water as base flow in the stream.

70 Aaron Thompson -- direct 1 0 Just intuitively? 2 Α Yes, 3 So there's no model runs that support that statement or anything? 4 No model runs; correct. 5 Α 6 0 And no hydrologic evaluations, just intuition? Well --7 Α Educated intuition albeit, but --8 Q 9 Α Okay, exactly. It's information I've received from hydrologists and my own intuition, yes. 10 11 A little further down you've got a statement 12 that, "The hydrologists and others associated with the 13 compact Administration have stated that significant 14 reduction in groundwater depletions is necessary for 15 Nebraska to come into long-term compliance with the 16 Compact." Right here under "Compact Administration". 17 Oh, I'm sorry, I have it. 18 Who are the hydrologists and the others that 0 19 you are talking about? 20 Α I think there was -- referring not only to 21 hydrologists within my own organization, but -- "and 22 others" meaning State or Natural Resource District 23 employees that I -- gave presentations at the NRD 2.4 meetings or at the hearings for the IMP testimony. 25 Okay. At the end of that page you say,

"Reclamation agrees that long-term Compact compliance can only be achieved through significant reductions in groundwater use in Nebraska and Colorado." Do you see that?

A Yep.

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Q What is long-term in your view?

Does that mean in perpetuity?

A I guess to answer that question, we didn't get her overnight. Our project deliveries and inflows didn't decrease one -- overnight, and it's my basic understanding through the scientists and engineers that have helped me that when you stop pumping groundwater, you can receive an increase in stream inflow, but you will because of the lag effect is what they currently refer to, you will not see that soon. If it took 30 years to create it, it's going to take --just giving you generalities, 50 years to get it back.

Q So with regard to long-term Compact compliance, you're talking about making sure that Nebraska's in compliance 50 years from now?

A Correct.

Q Okay. And what's a significant reduction in your view here?

A Earlier we --I kind of put a number on significant. My view is that the NRDs took a 20 percent

	Aaron Thompson direct
1	reduction from their allocations based on '98-2002. And
2	that we were presented with information that shows that
3	those at least was referenced Enders Dam, the model
4	runs that we were given, that further reductions needed
5	to be taken to increase inflow into the streams.
6	Q To get that inflow back to the five percent
7	variation of the historical average; is that the idea?
8	A To get it close to the historical average,
9	yeah.
10	Q And who provided you that modeling data?
11	A His name is Jimhe's in the back of the
12	room.
13	MR. LAVENE: Jim Snyder.
14	THE WITNESS: Thank you.
15	Q (By Mr. Wilmoth) When was that provided? Do
16	you recall when that was provided?
17	A In November of 2007.
18	Q And did you consider that analysis credible?
19	A Yes, I did.
20	Q So in your view, significant groundwater
21	reduction would be in excess of a 20 percent number that
22	you've been referring to?
23	A Yes, it would.
24	O Have you evaluated the economic ramifications

of that and what it might mean for the Basin?

	Aaron Thompson direct 73
1	A No, I have not.
2	Q Have you evaluated what it might mean for the
3	viability of repaying project costs?
4	A Federal project costs?
5	Q Yes.
6	A I've only evaluated the effect to date of how
7	reduced water supplies have affected project costs, not
8	how it would in the future.
9	Q At the top of page five, you indicate that the
10	your expectation that the Bureau's water rights will
11	be protected in the future. Do you see that statement?
12	MR. CHAFFIN: Which statement are you referring
13	to?
14	MR. WILMOTH: Top of page five, first sentence.
15	A Correct, I do see that statement.
16	Q (By Mr. Wilmoth) And how do you anticipate
17	that that protection will be afforded?
18	A I guess I anticipate through the IMPS and
19	everybody's interest in not only Compact compliance, but
20	delivering water to project lands, whether it be inside
21	an irrigation district or outside an irrigation district,
22	are a common goal for everybody.
23	Q You want to ensure that that's the case; is
24	that what your're saying?
25	A Yes.

	Aaron Thompson direct 74
1	Q And you don't believe currently that that is
2	the case?
3	A I believe currently our projects have seen
4	dramatically reduced deliveries to their project acres.
5	Q And do you understand that the State of
6	Nebraska essentially is attempting to deal with the
7	issues of concern to you through the IMP process; is that
8	your belief?
9	A It's my understanding the goal of the IMP is
LO	to, yes, create equity among water users.
L1	Q But a little later down in here you say
L2	about half way through this paragraph under expectations,
L3	"Reclamation does not believe that the IMP proposed by
L 4	the Middle Republican NRD and DNR will result in Nebraska
L 5	netting long-term Compact compliance," correct?
L 6	A Correct.
L7	Q And you indicated earlier in your deposition
L 8	that you were not certain about how the various
L 9	components of the Middle Republican NRD IMP would
20	operate, vis-a-vis one another; is that correct?
21	A Referring to
22	Q Allocations, individual allocations versus the
2 2	overall numning withdrawl limitations things like that?

Q And you didn't conduct any independent

A Correct.

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evaluation of the Middle Republican NRD, did you? The Bureau? Or did you rely just on what other -- the NRDs and DNR and other entities told you?

A We didn't do any of our own modeling or --just based on historical records from our projects and what we saw for precipitation and project deliveries.

Q Okay. At the end of this paragraph, you indicate a request by Reclamation, that the NRDs and the State place, quote, further and sufficient restriction on groundwater pumping that will allow stream flows to recover comma provide equity among water users comma and assist Nebraska in achieving Compact compliance. Do you see that?

A Yep.

Q What is sufficient restriction in your view?

A To me, sufficient restriction is -enables the surface, the senior surface water users in
the basin to be able to deliver the same amount of water
or --to be able to deliver water to their projects.

Q Is this based on the 18-inch allocation that was originally assumed?

A I think we've seen through history that the projects have been able to survive and live off something less than the definitive plan report of 18 inches. To put a specific number on each district, it changes as you

Aaron The	ompson direct	77
that the	y would increase more than what they had been in	1
the last	few years.	
Q	Gotcha. And does the Compact require that in	
your view	ν?	
А	The Compact put a moratorium onor the final	-
settlemen	nt stipulation put a moratorium on groundwater	
levels.		
Q	Does the Compact refer to groundwater levels,	
or ground	dwater recovery?	
А	I can't	
	MR. DRAPER: Are you asking him a legal	
question	at this point Tom?	
	MR. WILMOTH: No. He says he wants to make I	īn
his test:	imony, he indicates that he wants to ensure	
Nebraska	remains in Compact compliance. And I'm trying	
to figure	e out what he means by that, what's his frame of	-
reference	e. I don't mean the legal question.	
	Q (By Mr. Wilmoth) I'm just asking you, whe	en.

you talk about stream flow recovery and Compact

compliance, are those one in the same? Or, for example,

could Nebraska completely sever the connection between

groundwater and surface water and still be in Compact

compliance if the right volume of water makes it to the

Well, I think between these two sentences

gage?

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you already tried to make that, in my mind where I was making

that connection is that you can be in Compact compliance and surface water irrigation districts can still not have water to deliver. And that's the tie I tried to use among equity among water users.

Q Okay, so then if I understand what you're saying, Compact compliance is different than equity among water users, and equity among water users means within the State of Nebraska?

A Since I represent three states, and have projects in three states, I think it -- equity among water users means Compact compliance in all states, and equity among those water users within their compliant state.

Q Within the state, so, for example, if the State of Nebraska for some reason decided to shut down all groundwater uses in the Basin, that would protect your project, but it wouldn't be equitable, would it?

A Well, and we're getting close to first in time and priority and --

Q Well, I'm just asking you what your testimony meant. With regard to equity, does that mean surface water uses and groundwater uses within the State of Nebraska need to be afforded the same treatment? Because

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obviously that affects Compact compliance.

A Yeah. I think what I was trying to indicate there was that as you reduce and you put reductions on groundwater pumping, we'll see an increase in stream flow, and with that increase in stream flow, depending on how much you get, would you be able to have just Compact compliance, or would our projects be able to operate and run and still have Compact compliance within the state.

Q Okay, so, just to be clear, there's a difference between Nebraska's Compact compliance and Nebraska making the federal projects whole? In this testimony, this particular issue seems to be directed to the latter, not Compact compliance; is that correct.

A I think it tries to hit it both; achieving Compact compliance and achieving equity among water users is what it's --

Q Okay. Let me transition into the effect of some of these reduced water deliveries. You indicate at one point in your testimony that, "The reduced water deliveries have significantly reduced the economic benefits provide by the projects." And I will locate that statement for you in just a moment. It's on the last page under, "Conclusion," middle of the paragraph.

- A Which paragraph?
- Q Middle of the first paragraph on the last page

	Aaron Thompson direct 80
1	at the top. Which benefits are you referring to in this
2	statement?
3	A I think I'mLet me read it real quick here.
4	Q Absolutely, take as much time as you need.
5	MR. CHAFFIN: Tom, would this be a convenient
6	time to take a quick break?
7	MR. WILMOTH: Sure, I will just let everybody
8	know too, some of theseI do have only one other real
9	line of questions that relates obviously to the direct
10	testimony in the case. A lot of these questions have
11	already been answered because of this what we've just
12	gone through, so I would anticipate we've maybe got
13	another 20 minutes. But I'm more than happy to take a
14	break.
15	MR. CHAFFIN: That would be great.
16	THE REPORTER: Off the record?
17	MR. WILMOTH: Yes.
18	(Off the record from 10:49 a.m. to 10:58 a.m.)
19	Q (By Mr. Wilmoth) Mr. Thompson, can you turn
20	your attention to the top of page six of I believe it's
21	Exhibit 3.
22	A Yes.
23	Q About half way down that paragraph you have a
24	statement, "The reduced water deliveries have

significantly reduced the economic benefits provided by

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the projects. " And my last question, I believe before we took a break was, which benefits were you referring to?

A Right. And then I go on to say, other impacts to these were recreation, fish and wildlife. So I think the economic benefits include those, but are also crop loss, payments to the -- to Reclamation from the irrigation districts when we've seen reduced water deliveries throughout since the projects were constructed, the first term --the first contract terms were for 40 years, and they were extended, I think, to allow new ones to be put in place.

In July 25th of 2000, new contracts were put in place. The economic impacts of those new contracts compared to the old ones were a reduced percentage paid to Reclamation, increasing the percentage that was owed by aid to irrigation. So those kind of economic impacts, the irrigation districts ability to pay those fees require the United States government to reduce their percentages associated with OM & R payments. But also with reduced deliveries comes reduced crop yields.

- Q Do you have any evidence of that latter? Reduced crop yields?
  - A I have no economic analysis on that.
  - Q What about agricultural analysis?
- A I believe in our draft, Frenchman Valley

82 Aaron Thompson -- direct 1 Appraisal Study there are some general analysis of crop 2 vields. 3 THE REPORTER: What was the name of the study again? 4 5 THE WITNESS: Frenchman Valley Appraisal Study. 6 0 (By Mr. Wilmoth) Do you know what the crop 7 yield was in 2005 in KBID? I do not. 8 Α 9 If I told you it was the highest yield reported, would you be surprised? 10 11 Α I guess not. So there's -- Do I infer from that last answer 12 0 that there is not a direct connection then between 13 14 impacts and reduced yields? 15 No, I think there is a direct impact to reduced 16 yields, and -- or reduced water deliveries in crop 17 yields. Are these reductions from some kind of an 18 0 19 optimal amount or from a historical amount? 20 Α It's reductions would be from a historic 21 amount. 22 So over the -- if I'm understanding what you're 23 saying, over the course of the life of these projects, 2.4 yields have gone down as water supply has declined? 25 When the projects are unable to deliver water

83 Aaron Thompson -- direct yields are decreased. Well, I mean, from a theoretical standpoint, I understand that's true. Α Okav. And I'll concede that in theory, but is there any practical evidence of that fact of reduced yields over time that you know of? I guess I'm going by what I recall from conversations on the Frenchman Valley Appraisal Study and intuition that when you have projects that have not seen deliveries in two or six years, they're going to have reduced crop yields. Okay, and are there any studies other than the Frenchman Valley Appraisal Study that quantifies these lost benefits? A None that I know of, or can think of. And in the next sentence in this statement, you indicate that other impacts are related to lost fish and wildlife benefits; is that correct? And recreational benefits? Α Correct. And does the Bureau possess water rights for those uses? Our projects are generally authorized most -they're all under the Pick-Sloan projects; generally have

authorizations for irrigation, recreation, fish and

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Aaron Thompson -- direct

wildlife benefits.

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THE REPORTER: What did you say, Pick-Sloan?

THE WITNESS: Pick-Sloan.

MR. WILMOTH: P-i-c-k hyphen S-1-o-a-n.

THE REPORTER: Thank you.

A (Continuing) And that I am unaware of how these -- of how water rights are associated with those other two components.

Q (By Mr. Wilmoth) But those are operational authorizations, is that what you're saying? That the projects could be operated for those purposes?

A Correct, and have a -- the projects have an authorization to provide those kind of benefits.

Q But you're not aware of any water rights that are held for those purposes?

A No.

Q So, by enlarge, I just want to make sure I'm understanding the relationship of your projects and Compact compliance. If the State of Nebraska stays within its allocation collectively, under the Compact, but customers of the Bureau receive less water than they're entitled to under the contract, that doesn't have anything to do with Compact compliance, does it? That's an issue of project impacts?

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A I'm going to ask you to repeat the question.

Q If you assume for the sake of this question, that Nebraska is in Compact compliance, but that surface water users are receiving less water from the projects than they might historically have received. There's not an issue of Compact compliance there, is there, it's an issue of whether or not the projects are being impacted?

A Right. The -- We can -- I'm not an expert on Compact compliance accounting, but the amount of water we receive doesn't necessarily mean the State will be in or out of compliance.

Q And so at least in this testimony, there's a good component of it that really is speaking to the impact of groundwater pumping on projects that Reclamation oversees that is not related to Compact compliance; isn't that correct?

A Well, the relation, I think, as I kind of formulated earlier was this project water is --it has affects to Compact compliance, whether it be evaporation or when it's delivered and passes by a gage, and how that in any given year affects any given state, varies. It's my understanding that generally speaking, that when you have projects delivering water in a normal water year, you have water passing by gages, and that can increase or decrease the State's allocation.

	Aaron Thompson direct 86
1	Q So the physical presence and the mechanics of
2	how water flows through the system relates to compliance?
3	A Correct.
4	Q But the issue of whether or not surface water
5	users in the Reclamation project get their full
6	entitlement or not doesn't necessarily have to do with
7	Compact compliance, does it?
8	A Right. The amount of water that they get or do
9	not get doesn't necessarily mean they're Compact
10	compliant.
11	Q Let's turn to your statement of concerns here,
12	and this was providedand 1'11 give everyone a copy
13	here. This will be Exhibit 4.
14	(Exhibit No. 4 was marked for identification.
15	See Index.)
16	MR. DRAPER: Is this marked as an Exhibit?
17	MR. WILMOTH: This would be No. 4.
18	Q (By Mr. Wilmoth) Do you recognize this
19	document?
20	A Yes, I do.
21	Q And could you describe basically what this
22	document is?
23	A This document is an attempt to answer questions
24	one, eight and ten submitted by the State of Kansas for
25	our Touhy request.

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Q And just generally, what is the nature or the substance of this document? If you could just summarize it, general conclusions.

A It's to the general conclusions to show the history of the projects, how much the projects cost, where the projects were at as far as past and current delivery, and highlights from our IMP testimony.

Q Is there any information that you relied on in constructing this document that was different from the earlier 2008 testimony? Any studies, for example; any modeling results?

A No modeling, no studies. Well, no modeling. We did so some studies on economic impacts to our --I guess I don't know if I would call them studies, we did some analyses on our economic impacts to our projects compared to the IMP testimony actually putting dollar amounts.

Q And that analysis is contained in this document, or in some other materials?

A It's general amounts. This is --in this document, yes.

Q And the underlying analyses have been provided in response to the Touhy request to Nebraska in response to it's FOIA request? Is that right?

A For the economics or the mod- -- no additional

Aaron Thompson -- direct

modelings.

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O For the economic.

A For the economic? I think the only analysis for the economics was provided in this right in here, so whatever was written in this document.

Q And if I could turn your attention to the third page, and I'm sorry these page are not numbered, but it looks like this.

A Yeah.

Q About half way down --I'm going to try not to tread ground we have already tread since there's not any new back up data that supports this that isn't in the 2008 testimony, but in the first full paragraph there, you indicate, "Groundwater development and other activities in the Basin directly impact the water supply for the canals associated with the federal projects." Do you see that?

A Uh-huh.

Q What are the other activities you are referring to there?

A Give me another moment. I guess I'm going to have to say, I can't -- the way the sentence is structured, I can't think of what other activities we were talking about.

Q Would it possibly have been conservation

89 Aaron Thompson -- direct 1 practices? 2 Oh, I think that would be a fair other activity 3 to repairing, management, conservation practices. And did you make any effort to distinguish the 4 impact that's attributed to the groundwater pumping in 5 6 those other activities? 7 Α Like a --8 Q Percentage breakdown. Percentage. No, I didn't in this 9 documentation. 10 11 And you don't have any studies underlying this 12 material that would support or identify that relative attribution? 13 14 I think the only reference I can think of I 15 made to the percentage of groundwater affects is in IMP 16 testimony at the 80 percent number. 17 Okay, and with regard to groundwater 18 development, I assume that means groundwater development 19 in Colorado, Kansas or Nebraska; is that right? 20 I think that's fair to say because in the 21 above, we reference a -- Colorado Reservoir and we 22 reference Nebraska Reservoirs. 23 And did you make any effort in support of this 2.4 testimony to distinguish between the impacts attributable to Colorado, Kansas or Nebraska? 25

Aaron Thompson -- direct Α We put all of them on there, so we put -- our -- in the affected area the Colorado, Kansas and Nebraska reservoirs. And what are you referring to? In the above Federal reservoirs average inflow, the above table. Okay, so that's just a inflow volume though, that doesn't necessarily identify the level or extended groundwater impact associated with any one state pumping, does it? Α Correct. On the next page, top of the second full Q paragraph, you indicate again that their reduced water supply has impacted the districts ability to repay their shares of costs. Do you see that? Α Yes. And you mentioned that certain accommodations have been made, or have been historically made when that occurs; is that right?

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Yes.

23 reason as you sit here today to believe that 2.4 accommodations could not be made in the future?

what might happen in the future, but do you have any

I could speak to three accommodations I can

And I understand you can't testify or explain

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think of we've made, H&RW District, I guess, back in the eighties, accommodations were made to reduce or restructure or dissolve payment when we had low water years recently in '03 to '05 range, we allowed the districts to equalize that payment over a course of time, and then with the new contracts, we allowed a percentage change adjustment on their allocation to OM & R payments.

Q These things are made to make it easier to pay off the debt; is that the idea?

A Make it so the districts have an ability to pay and keep operating. But that debit isn't necessarily forgiven, it's transferred to power customers and what's known as Aid to Irrigation.

Q Towards the end of the page, and on to the next, you indicate that the reduced revenue to the Federal Government has been about five million dollars; do you see that?

A Correct.

Q And how was that figure calculated?

A That figure was used in -- for the irrigation districts in the Basin that renewed their contracts on July 25th of 2000. That five million dollars was figured -- their OM & R payment was, for any of those districts was somewhere between 20 and 33 percent, and in the new contracts was reduced to somewhere between, say, two and

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five percent. And that five million dollars was calculated based on that reduction in number from the time the contracts were signed to the end of the fiscal year '08.

Q And what's the practical affect of a reduction of that magnitude? Does that affect project operations other than the repayment restructuring?

A It reduces what is paid by -- or what the irrigation districts are responsible for and what the power district -- increases what the power district, or power customers are responsible to pay for.

Q So the United States is getting paid, it's just a matter by whom they are getting paid; is that what you are saying?

A Correct, that the debt was not forgiven, it was just reallocated.

Q So is it truly a reduction in revenue then, or is it just a shift in the allocation of costs?

A It's an adjustment in cost allocation.

Q And this -- Let's see, you've got a statement later on this last page about a third of the way down, "We do not believe that the groundwater pumping allocations provided in the current Integrated Management Plans are sufficient to prevent groundwater mining in the Basin." Do you see that statement?

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	Aaron Thompson direct 93
1	A Yep.
2	Q What is your definition of groundwater mining?
3	A My definition of groundwater mining is lowering
4	of the groundwater table.
5	Q At all? Lowering the groundwater table at all?
6	A I guess I don't know what you mean. When I
7	think of the definition of groundwater mining, it's
8	pumping or causing the aquifer level to decrease lower.
9	Q Okay, in some measurable amount?
10	A Right.
11	Q And what do you base your conclusion on? The
12	conclusion that the IMPS won't prevent that?
13	A The One of the things that I base that on is
14	model runs that we've seen in the Basin that show that
15	stream flows are going toare continuing to decline in
16	the future.
17	Q These are model runs that the Bureau produced
18	or that Nebraska produced?
19	A Yeah, Nebraska DNR produced.
20	Q Okay, thank you. These are the runs from 2007,
21	December of 2007, I think?
22	A November of 2007.
23	Q November of 2007. Thank you. And you're not
24	aware of any provision in the Compact that precludes
25	groundwater mining, are you? In other words, Nebraska

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could allow groundwater to go down to 1,000 feet below land surface, couldn't they?

A I'm not aware of any number in the contract that would, yeah, -- that would show a level of groundwater.

Q Later on you indicate it's your position that groundwater consumptive use must be reduced to allow the base flows to recover to a level that will allow both Colorado and Nebraska to consistently comply with the Compact. Does this get back to your earlier testimony that you believe recovery is required to bring you back to the five percent of historical inflows to the facilities?

A I believe recovery is necessary to -- from this statement to allow base flows to increase and I think there is a some sort of sustainable level of the groundwater level that would allow for Nebraska and Colorado to comply with the Compact.

Q And by base flows, you are talking about groundwater bed base flows, or does your concept of base flow have a surface water component?

A I guess what I was -- just what I was thinking in my mind, as the groundwater table rises, our rivers and streams see increased base flow, and that aides in Compact compliance, it aides in irrigation ability for

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surface water irrigators to store and use water.

Q So your basic position as I understand it, is that groundwater levels need to recover to some level that maintains a consistent base flow in the river? In other words, could Compact compliance be effectuated without such a recovery, or is that a pre-condition in your view to compliance?

A I believe that's -- I believe if groundwater levels were allowed to reach a sustainable level, that would allow base flows to recover and help meet Compact compliance.

Q Do you have any idea what percentage of the Republican River flow is made up of base flow attributable to groundwater?

A I don't know that number.

Q How much of a reduction in groundwater pumping is required? I know I talked about this earlier, and I believe I heard you explain that the requirements in the IMP are insufficient. Have you determined what level would be sufficient? Is it another two inches off existing allocations in the NRDs, or is it three inches or four inches?

A I've been at presentations where they showed different allocation amounts such as three inches, seven inches, five inches.

Aaron Thompson direct 96
Q I see.
A And to be honest, I don't remember at what
point in time usually the presentations were geared in
very specific areas, and I don't recall.
Q But these were presentations essentially
conducted by DNR
A DNR.
Q or the NRDs to talk about options for
Compact compliance, is that correct? A Correct, more
specifically, I remember more from DNR.
Q Okay.
A And those weren't necessarily at the IMP
deliberations and discussions, it could have been at our
Frenchman Valley Appraisal Study meetings.
Q A little later down in the document, you
indicate that, "Reclamation's ability to make stored
water available to assist Nebraska with Compact
compliance will be very limited." Do you see that?
A Last sentence, correct.

How does Reclamation assist with Compact

with Compact compliance is the lease or purchase of

project water for the State of Nebraska to aide in

I think one of the main ways we've assisted

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compliance?

projected into the future with the IMPs in place; is that

Based on the model runs we were given, we did

what you're suggesting?

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	Aaron Thompson direct 98
1	look at where the future stream flow was headed.
2	Q Okay, so we get back to the other work done by
3	DNR?
4	A Correct.
5	Q Which is a credible assessment in your view?
6	A Yes, it was.
7	MR. WILMOTH: I think that's all we've got.
8	I've got maybe two more questions, but let me just take
9	one second.
10	Off the record.
11	(Off the record from 11:31 a.m. to 11:32 a.m.)
12	MR. WILMOTH: Okay, let's just go back on the
13	record. I just have one quick question to clean up.
14	Q (By Mr. Wilmoth) I apologize if you gave me
15	the answer to this that I might have missed it. I have a
16	note to remind myself. As I get older and older, I pay
17	more attention to these notes.
18	We talked a little bit about surface water use,
19	and groundwater use, and the question that I have for you
20	is, are some of the Bureau customers groundwater users
21	also? In other words does groundwater apply to lands
22	within Bureau projects?
23	A We typically refer to this The answer is
24	yes. We typically refer to that as commingled acres is

kind of the jargon that's used. And we have seen as

Is that just internal to Reclamation, or were

We've received data, to my understanding from

the NRDs when we went out and asked for it, and they've

been very helpful on giving us whatever data they have

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you doing that jointly?

Aaron Thompson -- cross 100 1 for --2 Q Commingling. 3 --It's pretty easy in some, and it's a little more difficult in others. I think like the upper had, 4 let's say four, you know, and the middle and the lower 5 6 had numerous more, so --7 Q Okay. 8 -- I don't have that percentage number for you, 9 but I do know that we are working on it, and wish I could 10 give you an estimate on where it's at, but I just don't 11 know. 12 MR. WILMOTH: And with that, I'm through, and 13 perhaps Colorado or Kansas have anything to ask. 14 MR. AMPE: I just have a couple of questions. 15 Let me go first, and then you can follow up. MR. DRAPER: Okay. 16 17 CROSS EXAMINATION BY MR. AMPE: 18 19 Mr. Thompson, just looking at your Exhibit 4 --20 I shouldn't say your Exhibit, Mr. Wilmoth's Exhibit 4. 21 The final page, I believe page 5, and based on what you 22 wrote here, is it your view that the Compact requires a 23 sustainable aquifer, or a sustainable use of an aquifer?

A I don't know if the Compact requires that or

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not.

Aaron Thompson -- cross

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- Q And in the -- near the bottom of that first full paragraph on that fifth page, stated that you believe that sustain Compact requires addressing groundwater mining in the Basin. Could you just tell me what addressing groundwater mining in this context means?
  - A If m sorry, tell me what --
- Q It's near the bottom of the first full paragraph on the fifth or last page.
- A What I mean by groundwater mining in that sentence --
  - Q By addressing groundwater mining.
- A By addressing groundwater mining is the affects that groundwater mining has on flows in the system.
- Q Do you have any idea as to the amount of water that can be withdrawn from the Ogallala Aquifer without causing groundwater mining?
- A I don't know in the Basin, where the boundary line is for water that is hydrologically connected to the river and where it's not. And where it's not connected, I won't even guess at how that could or could not affect groundwater mining.
  - Q So, perhaps a simple answer would be no?
  - A Yes, no would be a simple answer.
- Q And from your understanding of state water law, you know, just say it was a general proposition for all

	Aaron Thompson cross 102
1	three states, does having a water right guarantee that
2	you will receive water under all circumstances?
3	A Having a water right doesn't guarantee that the
4	water is going to be there.
5	Q Does not guarantee physical availability of
6	water?
7	A Correct.
8	MR. AMPE: Okay, thank you. Nothing further.
9	MR. DRAPER: Why don't we take about a Draper,
10	three minutes.
11	THE WITNESS: What's that mean?
12	MR. WILMOTH: I don't care. If you want to
13	take ten-fifteen minutes, whatever.
14	MR. DRAPER: I think something on the order of
15	five is what we're looking at just to get organized.
16	THE REPORTER: Off the record?
17	MR. DRAPER: Yes.
18	(Off the record from 11:39 a.m. to 11:46 a.m.)
19	MR. DRAPER: So, we can go back on the record.
20	THE REPORTER: Okay.
21	BY MR DRAPER:
22	Q Good morning, Mr. Thompson.
23	A Good morning.
24	Q It's still barely morning. I'd just like to
25	ask you about a few exhibits that we would mark to the

	Aaron Thompson cross 103							
1	deposition from among the documents that you produced.							
2	It's Exhibit No. 5. I'd like to pass that to the court							
3	reporter and I will pass you another one. I would ask							
4	that you							
5	(Exhibit No. 5 was marked for identification.							
6	See Index.)							
7	MR. WILMOTH: Just for the record, John, these							
8	are documents that were produced by the Bureau in							
9	response to the Touhy request?							
10	MR. DRAPER: Right.							
11	MR. WILMOTH: So we have copies of these,							
12	right?							
13	MR. DRAPER: You do have copies of those.							
14	MR. WILMOTH: Okay, thanks.							
15	MR. DRAPER: We're marking this as deposition							
16	Exhibit No. 5.							
17	Q (By Mr. Draper) Mr. Thompson, do you recognize							
18	this document?							
19	A Yes, I do.							
20	Q Now would you generally describe it for the							
21	record to identify it?							
22	A This is Reclamation's written testimony on the							
23	Lower Republican NRDs IMP in January of 2008.							
24	Q And does this contain information and positions							
25	of the Bureau of Reclamation similar to the January 8,							

	Aaron Thompson cross 104
1	2008 testimony that you've discussed earlier in the
2	deposition?
3	A They are very similar in content to the Exhibit
4	No. 4, the Middle Republican IMP testimony.
5	Q So they're similar, not exactly the same. There
6	are some differences, if I read these correctly?
7	A There are some differences, yes.
8	Q But this is a document that you that was
9	prepared under your supervision?
10	A Yes, it was.
11	Q All right. I'm going to be identifying several
12	documents like that. Some of these we've looked at
13	documents that are relatively similar, so I'm not going
14	to take the time to go through them.
15	(Marked Exhibit No. 6 for identification. See
16	Index.)
17	As deposition Exhibit 6, I've identified a
18	document dated November 1, 2007; so you recognize this
19	document?
20	A Yes, I do.
21	Q Would you describe it, generally, for the
22	record?
23	A This was the testimony provided to the Upper
24	Republican NRDs, draft IMP in November of '07.
25	Q So this is a document, in many ways, is

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parallel to the previous two sets of testimony that we've discussed with respect to the -- would be the Lower and Middle Republican Natural Resource Districts?

A Yes, they are close in content, but not exactly the same.

Q Again, I notice there are some differences.

All right. I'd like to also identify as Exhibit No. 7,

and excerpt from one of the documents that you provided

in your response to our Touhy request.

(Exhibit No. 7 was marked for identification. See Index.)

And this would be deposition Exhibit 7. This does not have a cover letter or cover page. Do you recognize this document as being an excerpt as one of the documents that you provided?

A Yes, it looks like an excerpt from the draft, Frenchman Valley Appraisal Study Report.

Q This is what you referred to earlier as the draft Frenchman Valley Appraisal Report?

A Correct.

Q And I would just note that I have --the excerpts I've made since it is a long document, the first two pages as we found it in what you've provided under the heading, "Summary", and then the final Chapter 7 which has the title "Conclusions and Concerns." If you'd

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take a minute to look at this since we haven't looked at this document, or else a similar one earlier. Would you take a look at it and describe what the major points are --Well, let me back up. Could you say a few more words about what this actually represents. Is this a draft document at this time?

- A This is still a draft document at this time.
- Q And what is the purpose of the study that is behind this document?

A The general purpose of the study is to determine in the --for the Frenchman unit with the current conditions that the reservoir is in that area, to examine and look at alternatives in the Basin in that particular area of the Basin; and to determine if further detailed feasibility study is warranted by the United States Government to further look at the detail. So the appraisal study would be the first level of detail to look at, options for the irrigation districts, and uses of the water in the Basin, in that particular Frenchman unit part of the Basin.

- Q And this is the unit that includes Enders Reservoir?
  - A It does, yes.
- Q Mr. Wilmoth was asking you about your positions as expressed in some of the documents that have already

Aaron Thompson -- cross

been made deposition exhibits. If you look over to the third page of this document, it's labeled page 51. The last paragraph there starts without -- with the words, without drastic reductions. Do you see that sentence?

A I do.

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Q Would you explain the basis for that statement? You might read it for us just so that people that don't have the document in front of them can understand.

A It says, the paragraph starts with, "Without drastic reductions in groundwater pumping in the Frenchman Basin, there will not be enough stream flows to provide any sizeable deliveries to the H&RW Irrigation District.

- O What does H&RW stand for?
- A I'm blank on that.
- Q Is that the --
  - A Hitchcock and Red Willow. Is that the --
- Q And I see you've defined that on the first page of the document.
  - A Okay.
- Q Yeah, it's Hitchcock and Red Willow Irrigation District. Just the statement we just asked you to read, does that represent the assessment of the Bureau at this time?
- A That district has not made deliveries in

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several years, and continues to not have enough water in the reservoir to make a substantial delivery. I think beyond the -- I think this year they might be able to make a three inch delivery allocation. Maybe. But the study is to determine if -- is to look at alternatives if, for example, if the district was to make deliveries every third or fourth or fifth year, how would that look, and what quantities would that -- would those deliveries look like, and is that a viable option for the district.

This is one district that still has a -- if not have a re-payment contract, but a water service contract, which means that they just pay for water that is delivered.

Q And I've just excerpted, for convenience, the beginning and ending of the text of the draft report, but there is further text that supports the summary and the conclusions that I've excerpted in the draft report; is that right?

A Yes.

Q I'd like to identify as deposition Exhibit No. 8 a letter that I think you are familiar with, but went to Mr. Lavene from you dated January loth, 2008.

(Exhibit No. 8 was marked for identification. See Index.)

Do you recognize that?

109 Aaron Thompson -- cross 1 Α I do. 2 0 Is this the letter that you wrote to Mr. 3 Lavene? Yes, it is. 4 Α And generally what does it discuss? 5 6 It goes over general conditions or possible 7 terms for surface water purchases or leases. (Exhibit No. 9 was marked for identification. 8 9 See Index.) I'd like to provide you also as what I've 10 11 identified as deposition Exhibit 9. A later letter that 12 you provided to Mr. Lavene; is that right? 13 Α Correct. 14 And what is the subject of this letter? Q 15 This letter is to expand on the first letter, 16 additional parameters that might need to be looked at; 17 different conditions that might need to be looked at, and 18 also contained a very general process for the contracting 19 process for leasing or purchasing water. 20 And are you involved with discussions with the 21 State of Nebraska at this time regarding purchases or 22 leases of water? 23 Not at this time, no. Α 2.4 Have you had previous discussions with them? Q 25 I think our previous discussions are

	Aaron Thompson cross 110
1	highlighted in the information requests that we gave back
2	to the State.
3	Q Have you had discussions since your last letter
4	of May 7th, 2008?
5	A We did have a water purchase in 2008, but not
6	it was for one year only, not for a long term lease or
7	purchase of that water.
8	Q And is that accomplished before the date of
9	this letter or
10	A That was actually the Frenchman Cambridge
11	Irrigation District with the State of Nebraska before the
12	date of this letter.
13	Q So since the date of this letter, you have not
14	had further discussions?
15	A Correct.
16	Q I'd like to provide you now, and asked to be
17	marked as deposition Exhibit 10.
18	(Exhibit No. 10 was marked for identification.
19	See Index.)
20	You were discussing with Mr. Wilmoth, the
21	concept of commingled acres, and first I want, in this
22	regard does this letter come from your files.
23	A It has our stamp on it so yeah, I believe it
24	does come from, or, yes, it does come from our files.

And you are generally the custodian or in

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charge of those files?

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A This office has the responsibility of keeping our project files.

Q This is a letter dated May 1, 2006 to Mr. Simpson, Mr. Pope and Mr. Raunshagen. Those identified as acting area managers. This was before you assumed the position as area manager; is that right?

A Yes, it is.

Q I wanted to draw your attention to the bottom of the first page of this letter, which is discussing the plans that Nebraska plans to take in anticipation of the water short year in 2006. And there, Ann Bleed, the acting director of the Department of Natural Resources, indicates that some irrigators, and I am quoting, "Some irrigators in the Superior Canal surface water delivery area will be using an alternate supply from groundwater wells located below Guide Rock Diversion Dam. Is the Superior Canal surface water delivery area an area that would fall under the category that you descried as being commingled acres?

A I think it's fair to say, generally, somewhere within our irrigation district there's a commingled acre somewhere, so, yeah, I would think it's fair to say that there's a --there's commingled acres within the district.

Q This is one example that there are commingled

Aaron Thompson -- cross 112 acres throughout the various project areas throughout 1 2 Nebraska. Yes. 3 Α To go back to an earlier question that you were 4 asked by Mr. Wilmoth, you indicated that you had reviewed 5 6 some or all of the expert reports submitted in this 7 arbitration. You didn't receive those reports from 8 Kansas; isn't that right? 9 I received them from my regional office and I 10 don't know where they received them from. 11 Okay, as I understand it, Mr. Lavene provided a 12 set of the exhibits in this proceeding; is that true? If 13 you know. 14 Α I really don't know. 15 MR. DRAPER: Or maybe counsel can confirm that. THE WITNESS: Can counsel confirm that? 16 17 MR. LAVENE: I can confirm that. 18 THE WITNESS: Thank you, sorry. 19 MR DRAPER: I have no further questions. We're done. 20 21 THE REPORTER: I need you to advise him of the 22 read and sign, please. 23 MR. WILMOTH: You're entitled to read and sign 2.4 and make minor corrections associated to that to show the 25 authenticity and the correctness of what was stated.

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1	Given the timing, I'm hoping you will waive that							
2	entitlement.							
3	MR. DRAPER: Well, if they want to reserve that							
4	that's fine. It doesn't mean that we can't go forward							
5	with it. If it's reserved, it's fine with me.							
6	THE WITNESS: I would like to read and sign.							
7	THE REPORTER: Thank you.							
8	(Whereupon the deposition was concluded at							
9	12:08 p.m. on April 7,2009)							
10								
11	(Deposition was resumed for recalling of the							
12	witness at 3:21 p.m. on April 7, 2009)							
13	THE REPORTER: I would just like to remind you							
14	that you are still under oath.							
15	THE WITNESS: I understand.							
16	REDIRECT EXAMINATION							
17	BY MR WILMOTH:							
18	Q Mr. Thompson, I don't know if you have been							
19	sitting in the back and thinking about this or not, but							
20	if you haven't, would you take a few minutes and look at							
21	those eight points that are listed on the back page of							
22	Exhibit 16. And I'm principally interested in points 3,							
23	4 and 5, I suppose.							
24	A Okay.							
25	(Witness examining document)							

2.4

Okay, I've reviewed them.

Q Okay. And this document may predate your arrival here, but are you generally familiar with the concepts embodied in this document and these positions that are identified herein?

A I am. And this does predate me, but I am familiar with the concepts.

Q I apologize for not asking you these questions originally. I was focused on the date and that's why I didn't bring them up earlier. And this may retread some ground frankly, and if it does, then we'll curtail it and call it a day, but --

And before I proceed, let me restate again, what I am principally interested in is the time period between the date that this document was prepared; roughly June of 2006 and let's say the time that you prepared your testimony in this proceeding.

A Okay.

Q During that time period, did anything change in your mind with regard to these positions or roles of Reclamation?

A No, I see no -- I can think of no significant changes to the points. I would like to clarify though that I am unaware of LB 1 226 in point number eight.

Q Okay, that's fine. So with regard to point

number 3, if I understand this correctly, at that time, and until the time that you prepared your testimony, the position or role of Reclamation was to assist the states with Compact compliance when that can be done in a manner that doesn't injure the facilities?

A Yes.

2.4

- Q Is that a fair statement?
- A Yes, it is.
- Q So once again, the paramount concern of Reclamation is protection of its facilities?

MR. DRAPER: By facilities, do you mean its structures separate from operations and the ability to serve its customers?

MR. WILMOTH: No. I mean projects, the ability to serve customers, the ability to derive revenue for repayment, the infrastructure.

A Sure, we're, you know, one of our primary things is safety of dams is what we call it, but yes, it's all of those things that you just listed and probably a few more.

Q Okay. And is that generally what you meant in number five, protect project viability?

A Sure, I think my interpretation of what was in -- is what's meant there. When we usually talk about project viability, we talk about our structures being

Aaron Thompson -- cross

2.4

able to hold a conservation pool if we have gates that are in need of repair or have to be -- if the pool has to be lowered to repair those gates, we want to protect the viability of our projects so we want to do preventative maintenance to help protect those gates and ensure there is a conservation irrigation water supply for that reservoir.

Q And so, number four is protect our surface water supply for each of our projects. Take whatever appropriate action is needed to protect project water rights. Do you see that?

A Yes.

Q Would those actions include participating in this proceeding?

A I think that's a -- I think protecting our water rights includes participating in Compact discussions, which would include this Touhy request.

Q And appearing as a witness in this proceeding?

A Yes.

MR. WILMOTH: That's all I got.

MR. DRAPER: I don't think I have any questions.

 $$\operatorname{MR}.$  WILMOTH: Well, thank you again, Mr. Thompson.

(Concluded at 3:28 p.m. on April 7,2009)

## CERTIFICATE OF WITNESS

## DEPOSITION OF AARON THOMPSON

Taken April 7, 2009

I certify that I have read my deposition referenced above and that discrepancies, if any, are listed by nage and line numbers as follows.

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